TRAINING OF KRPs ON CONTENT CUM METHODOLOGY OF TEACHING ECONOMICS AT +2 LEVEL FOR THE STATE OF JAMMU AND KASHMIR

विद्ययाऽमृतमश्नुते

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PREFACE

Economics as a school subject at Senior Secondary stage has much significance for the day to day life of the learners. Mastery over the content, though critical, does not guarantee teachers competence in transacting the subject effectively in the classroom. In addition to the knowledge of content and general pedagogy the teachers have to develop their competence in transacting specific topics in order to bring about learning in the students.

This demand from the teacher to plan interactive exercises and activities which can provide rich experience to the learners. Moreover, the changing global and national economic scenario gives rise to new concepts and concerns in the field of economics which also ask for the teachers to update their content knowledge.

In the content of the above concerns the educational officials of Jammu and Kashmir has suggested for a training programme on content cum methodology of teaching Economics for the +2 level teachers. It was under this background the present programme was undertaken by RIE, Ajmer

The programme was organized in two phases:

1. Development of the package on content cum methodology of teaching Economics
2. Training of KRPs on the package

The package was developed through workshop mode with the involvement of experts in the field, training was imparted through lecture cum discussion, demonstration and activities. It is hoped that the package will help the teachers to improve their classroom practices.

I express my gratitude to Prod.A.B.Saxena, principal, RIE,Ajmer for his valuable suggestions and encouragement. I am indepted to Dr.S.K.Pranami , Head Deptt.of Extension Education , RIE, Ajmer for providing academic and administrative support. I am particularly thankful to Directorate of Education, Jammu & Kashmir for deputing participants to the training programme.

I am extremely thankful to the resource persons Dr.T.C.Pathak and Shri Sunil Gupta for providing valuable academic support , without which this work could have been incomplete. I am also thankful to Mrs.Tulsi and Bhagwati Prasad for providing the administrative support.

Class XI **Sub.: Economics**

Unit - V : Exchange

Introduction -

Exchange is the main form of economic activity. The entire activities of consumption and production are dependent on exchange. In modern times production is ultimately for exchange

Similarly, consumption at the modern level of its size and variety cannot be possible without exchange. Thus exchange facilitates the activities of both consumption and production

Objectives - The teacher will be able to -

1. Explain the meaning of exchange . Why exchange takes place? It benefits both parties in exchange.
2. Clarify the meaning of the market , a place a region.
3. Distinguish between perfect and imperfect markets? What makes a market imperfect & what is the result of imperfection in the market. Its desirability.
4. Study briefly other market conditions like monopoly, duopoly and oligopoly.
5. Analyse overall market situations in practice. The relative nature of the market. Desirability from social or consumer point of view.

Meaning of exchange in Economics -

In economics exchange means the legal, mutual and voluntary transfer of goods or between goods and money. If it is in terms of goods its barter and if it is in money it is called money economy. As human civilization grew, barter, economy was replaced by money economy.

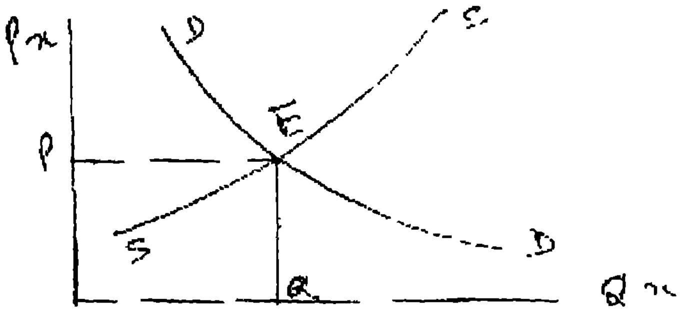
Beneficial nature of Exchange -

Exchange takes place between two parties - buyer and seller. Unless it is beneficial to both it will not take place. Usually in exchange a person parts with a commodity (or money) whose MU is very low and gets in return a commodity or money whose MU is high. To the buyer the MU of money is low while its high for the commodity he is going to purchase and vice- versa.

Meaning of Market -

In the general sense market is a place where exchange takes place between sellers and buyers. But in the economic sense market is a region in which buyers and sellers are spread. So it can be a local market, provincial market, national or international market. It depends on the level at which goods and services are traded.

A market is a place or a region where the equilibrium between demand and supply takes place. Price and quantity traded being determined simultaneously.



E = Equilibrium point between demand and supply

P = Equilibrium price at which transaction takes place.

Q = Quantity of the commodity (x) transacted.

Classification of the markets :

Markets are generally classified on the basis of following criteria -

1. Nature of the products - homogeneous or differentiated It will determine the extent of substitution between products.
2. Information about market with the sellers and buyers, symmetric or asymmetric.
3. No. of firms in the industry.
4. Conditions of entry in the industry.

On this basis markets are divided into perfect and imperfect markets

Perfect and Imperfect Markets -

Generally, the markets are divided into perfect and imperfect markets. Perfect market is a market where perfect competition prevails While a market where there are imperfections is called imperfect market.

Perfect market is imaginary and unreal. It is assumed for simplifying analysis . Its features are discussed in the following section. While imperfect markets are really found and we confront them.

Imperfect markets take the form of monopoly, duopoly, oligopoly & monopolistic markets.

Features of Perfect Competitions -

To discuss the difference between perfect and imperfect markets we mention the features of perfect competition -

- i. A large number of buyers and sellers (firm). Both are the unorganized.
- ii. The product of the firm is homogeneous
- iii. Symmetric information among buyers and sellers about the markets.
- iv. Perfect mobility of goods , services and resources.
- v. Absence of transport costs.

On the contrary imperfect markets are those in which just the opposite is found -

i. A few buyers or sellers (firms) generally the letter,

ii. Differentiated product

iii. Asymmetric information among buyers and sellers about the market conditions

iv. Imperfect mobility of goods , services and resources (factors)

v. Prevalence of selling and transport costs

Results or desirability of the perfect & imperfect markets.

Perfect markets -

i. Symmetric or perfect knowledge of the markets make the market demand curve for the firm perfectly elastic to which the firm has to adjust its supply.

ii. None of the buyers and sellers is able to manipulate the price adversely affecting the other. Usually it is the producer or the firm which does it.

iii. There is a single price for a commodity at any point of time in the whole market. The buyers are not exploited

iv. Absence of selling costs in the perfect markets also keeps the price low benefiting the buyers or consumers surplus is maximized.

v. Production takes place at the optimum level (or point) , particularly in the long run benefiting the whole society resulting into optimum utilization of resources of the economy.

On the contrary imperfect market results into undesirable conditions particularly from the consumer's (buyer's) point of view -

(a) Asymmetric knowledge about the markets results into different prices prevailing in the market at any point of time, which are charged from different buyers

(b) Price is manipulated generally by the sellers harming buyer's interests.

c) Prevalence of selling costs and transport costs raise the price against the interest of the consumers

(d) Production takes place at the sub -optimum level. The resource utilization is not at the optimum level. Whole society and particularly the consumers suffer.

(e) The economy functions at the sub- optimum level.

Meaning of Monopoly, Duopoly and Oligopoly -

Among other market structures **monopoly or pure monopoly** is another important form Monopoly is opposite of competition. The main features of monopoly are-

(i) Only one seller of the product in the market.

(ii) Absence of any close substitutes for the product in the market.

(iii) The firm is a price taker and not a price maker as under perfect competition.

The result in the monopoly market is that the seller fixes generally a high price to the detriment of the buyers and in that sense it is undesirable, and is to be controlled or regulated by the government.

Another important form of imperfect competition is **duopoly** in which there are only two sellers (producers) of the commodity. The market share is divided among these producers. Each seller has so large share of the market that any one can affect market price by his own individual action. But they are also aware that any action by a seller will provoke a retaliatory action from the other seller and may result into price wars, in which none of them will benefit only the buyers will benefit . So there is a unique inter-relationship among the sellers with respect to output and price policies.

As compared to duopoly which has only two sellers, there is another form of market which is called **oligopoly** in which the number of firms is more than two firms but still few where any action regarding output and price by any firm calls for further retaliatory action by other. So each firm will weigh likely reaction by other firms before initiating any action of his own. Like duopoly any action by any firm may lead to price wars So under oligopoly there is price rigidity - no firm wants to change its price. American market is dominated by large oligopoly firms, cartels and MNCs

Monopolistic competition is another more generally found form of market structure. It is also called imperfect competition in which both the elements of competition and monopoly are present.

Its main features are -

i. Large number of sellers and buyers
ii. Free entry and & exit of the firm in the long run.
iii. There is product differentiation through brand names, advertising etc.

The first two features are competitive while the third is monopoly element.
This is the general form of market. Various brand names are found in the market and their producers behave like monopolist in the market, like Tata, Bajaj etc.

Contents

Exchange - Meaning
Beneficial character
Market- Meaning, Equilibrium
Classification - its criterion
Perfect and Imperfect market
Features
Results or desirability
Monopoly, Duopoly, Oligopoly, Monopolistic Market

Student's / Teacher's action:

(i) Observe the market for perishable goods like fresh vegetables. Note the price change during festivals and marriages.

(ii) Analyse the market for branded products like Tata and Bajaj

(iii) Collect and test knowledge about a product in a particular community among buyers and sellers.

Methodology :

A combination of lecture , questioning and discussion methods can be used for teaching this topic and make it interesting for the students

References -

1. NCERT, S.P Das, Introductory Microeconomics A text book for class XII Ch. 6
2. P.N. Chopra - Micro Economics Ch. 17 relevant part

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DISTRIBUTION (contd.) - II

Unit VII **Class XI**

Sub : Economics

1. Introduction :

Different factors of production engaged in production activities are paid remuneration for their contribution in production. Their rewards are known as rent, wages, interest and profit In general their meanings are known but in economics, they have a specific meaning which is being explained in this topic. It will help us in having a clear and exact meaning of these rewards and will facilitate their determination.

2. Objectives :

The teacher will be able to -

(i) explain the meaning of each factor reward.

(ii) Create interest among students regarding these rewards, which mean differently in economics as compared to what the people are likely to understand.

(iii) explain the meaning of contract rent and economic rent.

(iv) analyse the distinction between nominal and real wages

(v) distinguish between net interest and gross interest

(vi) how net profit differs from gross profit

3. Contents

(i) Difference between contract rent and economic rent : -

Contract rent is the rent or payment made through contract or agreement between landlord and land user, which are different people in modern times. It is an amount which is generally in excess of the economic rent and includes payments other than economic rent.

Economic rent has been defined as the payment made for the use or services of land. Ricardo treated rent as payment for land use only. But

Marshall included other free gifts of nature also with land for whose use rent is paid.

Contract rent includes economic rent as well as other payments like interest on capital invested by the land lord also in the house on the farm. Thus contract rent will always be greater than economic rent

(2) Nominal and real wages :

Real wages also differ from nominal or money wages. Money wage is the payment made to workers for his services in production . They are measured in Money terms.

But sometimes workers get other facilities besides their money wage. These facilities form part of the real wages along with money wages. Real wages refer to the amount of necessaries, comforts and luxuries which the workers can get in return for his services. Real wages are the true indicator of workers prosperity or his position.

Factors affecting real wages :

(i) Purchasing power of money - When the purchasing power of money increases (due to fall in price) , the real wages increase and vice- versa.

(ii) Additional facilities - received by the workers like free lunch, free housing, medical and conveyance allowances increase the real wages.

(iii) Chances of extra income like earnings by doing extra work also increase the real wage.

(iv) Conditions - like working hours, sanitation, atmosphere all increase real wages.

(v) Nature of job - if the job is permanent real wages increase while they decrease for temporary jobs.

(vi) Besides future prospects, period and cost a learning trade (work) also influence real wages)

3. Net Interest and Gross Interest :

Interest has been defined as the " Price paid for the use of capital or loanable funds " Capital is productive by its very nature and hence a payment for its use which is called interest

The distinction is made between net interest and gross interest The payment made by the borrower for the use of money capital is pure or net interest. But total payment received by the lender of capital from the borrower is called gross interest

Gross interest includes payments other than net interest as well. They are -

(i) Insurance against risk of default on the part of borrower. The lender charges extra interest for loans not being repaid by the borrower. This risk is very high when loans are for unproductive purposes and gross interest increases accordingly.

(ii) Payment for inconveniences - Sometimes loans are not repaid in time. Then it causes inconvenience to the lender because he has to send reminder by post or by person, make arrangements for collecting repayments etc. For all these inconveniences caused he makes an extra charge which is a part of the gross interest.

(iii) Reward for management - generally moneylenders have to keep accounts, engage accountants and other staff, arrange for stationary, stamps etc. For all this as well he adds an extra charge which is a part of gross interest.

Thus net interest is different from gross interest

(4) Net profit and gross profit

The objective of every producer is to earn profits which he tries to maximize. Generally profits mean the difference between costs of production and receipts (revenue) from the sale of product.

Profit is the payment made to the entrepreneur for his services. Production is a risky activity and even with the best efforts of the entrepreneur, it may suffer losses Therefore unlike any other factor reward, profit can be positive or negative (loss)

Net profit is the rewards for the following functions performed by the entrepreneur -

(i) Reward for coordination - .

Entrepreneur coordinates the activities of all the persons engaged in the production activity of the firm.

(ii) Reward for risk - taking -

These risks can not be insured (like insurable fire, accident risks) and are undertaken by the entrepreneurs His estimates of costs and revenue are subject to high risk.

(iii) Reward for Innovation :

The entrepreneur may produce a new good or produce the same good with a better technique causing profit to the firm.

(iv) Monopoly gains -

If he is a monopolist or a single producer he can control or manipulate price for the product and price of the factors to an extent resulting into profits to the firm.

As compared to this, gross profits include the following as well : -

(i) Remuneration for factors of production contributed by the entrepreneur themselves like capital supplied by the entrepreneur.

(ii) Depreciation , maintenance, insurance charges etc. are to be paid for and are the part of the gross profit.

(iii) Extra personal profit - Which occur either due to monopoly position or chance factors which are called windfall gains and are caused not by any special ability of the entrepreneur are also a part of gross profit.

Thus to arrive at net profit we have to deduct above three from gross profit

Contents

Contract rent and economic rent
Nominal and real wages
- Factors affecting real wages
Net Interest and gross interest
- constituents of gross interest
Net profit and gross profit
    - constituents of net profit
    - constituents of gross profit

4. **Teacher's / Student's Activities : -**

(i) Analyse house rent and distinguish it from rent Analyse the constituents of house rent

(ii) Distinguish between bank interest and Sahukar's interest charged

(iii) Compare wages in the government or organized and private sector

(iv) Try to study net profits and gross profits from the balance sheet of the firm

5. **Methodology :-**

A combination of lecture method, questioning method and problem methods can be used in this topic.

6. **References**

1. P.N. Chopra- Micro Economics, Relevant pages from chapters 23-26.

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Class XII **Sub - Economics**

Unit - VI : Distribution

1. Introduction

When the factors of production are employed in a firm, they are to be paid rent, wages, interest and profit. Their determination is concerned with distribution. Various theories for all the factor rewards have been propounded for these rewards from time to time. An elementary treatment of the theories of pricing of these factor rewards is our main concern in this topic ..

2. Objectives : To enhance the ~~activities~~ ability of the teacher to -

(i) Explain the concepts of pricing of factors of production.

(ii) Provide them an insight unto the purpose of pricing of the factors.

(iii) Explain specific theories of each factor pricing.

(iv) Analyse specific characteristics of each factor and need for a separate pricing theory ~~of~~ or a general theory for all the factors with limitation of general theory for each factor pricing.

3. Contents :

(1) General Theory of distribution

Pricing of the factors of production needs a separate theory as compared to theory of commodity pricing, because the features of demand and supply of various factors of production are different form that of a commodity -

- Demand for a factor is a derived demand while for a good it is a direct demand.
- Demand for a factor depends upon its marginal productivity- while demand for a good depends on its marginal utility to the consumer.
- Demand for a factor is a joint demand while the demand for goods depends upon the price of that commodity.

Similarly on supply side the differences are -

(i) No direct positive relationship between price and quantity supplied, while there is such relationship for a commodity.

(ii) Price of a factor does not depend upon its cost of production While there is such a relationship for a commodity.

The theory of distribution solves two problems -

(i) Determination of the price of each factor (Micro Theory of distribution)

(ii) Division of income among different factors of production (macro theory of distribution)

There are two micro theories of distribution -

(i) Marginal productivity of theory of distribution

(ii) Demand and supply theory of distribution

(2) The concept of Marginal product -

(i) Marginal Physical product (MPP)

$$= \frac{\Delta TP}{\Delta Fv}$$

ΔFv = A unit or small change in variable factor.

(ii) Marginal Revenue product (MRP)

$$MRP = MPP \times MR$$

(iii) Value of Marginal Product (VMP)

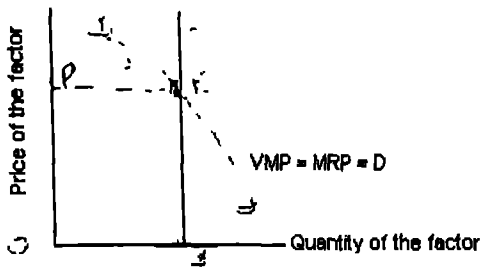
$$VMP = MPP \times P$$

Under perfect competition since $P = MR$, therefore $VMP = MRP$

But under imperfect competition since AR or $P > MR$,, therefore $VMP > MRP$

(3) Marginal productivity theory of distribution -

Propounded by J.B. Clark states that the price of a factors is equal to its marginal product (MP) . It determines demand curve of a factor which is downward sloping Supply curve of a factor is derived from the assumption of given resources and is Vertical.



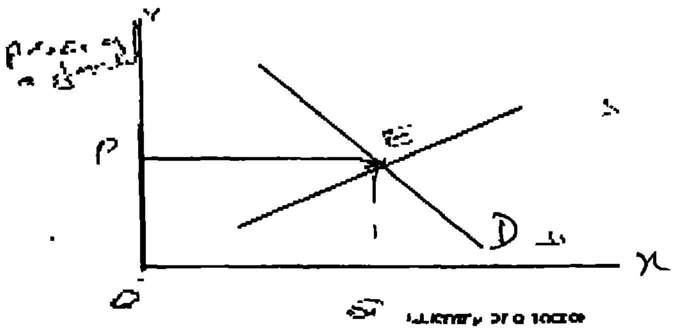
In the diagram DD = demand curve for a factor

SS = Supply curve of the factor

P = Price of the factor determined

(4) Modern Theory of distribution

Formulated by Marshall and J R Hicks states that like a commodity the price of a factor is determined by demand and supply of a factor. It is also known as the supply and demand theory of distribution. DD curve for a factor is downward sloping while the SS curve is upward sloping



This theory is more comprehensive theory of distribution as compared to marginal productivity theory of distribution.

(5) Wages

According to Marshall " Wages are the price paid for use of labour " .

There are certain features of labour like that

(i) Labour is perishable

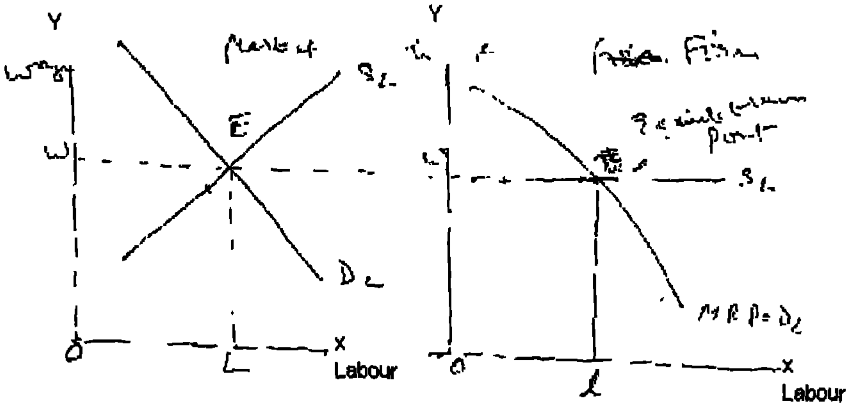
(ii) Labour is an active factor of production

(iii) Labour is mobile

(iv) Supply curve of labour is backward sloping

The demand curve for labour is a derived demand and is downward sloping. The supply curve of labour is backward sloping. But for the whole market it is positively sloped

Determination of wages under perfect competition.



Thus for the firm OW is the wage rate given by the equilibrium between market demand curve and market supply curve at point E while the firm is in equilibrium at point e employing OL quantity of labour.

(6) Rent : In general rent means any payment made for hire of any good like a house, a car etc. In economic sense Riacrdo treated rent as payment for the use of original and indestructible powers of soil It is related to the earnings of land only whose supply is completely fixed The modern theory treats rent as payment for any factor over an above the minimum amount needed to bring forth its supply

Ricardian Theory of Rent :

Ricardo treated rent as a surplus earned on better land as compared to inferior land. He divided land into different categories on the basis of their fertility As price of corn rises it becomes possible to cultivate inferior land because higher cost of production than can be met, while the superior land earns surplus which is rent

Ricardo also said rent is price determined and not price determining. Ricardo said " Price (corn) is high not because rent is high , but rent is high because price is high " When price of corn rises only then rent emerges

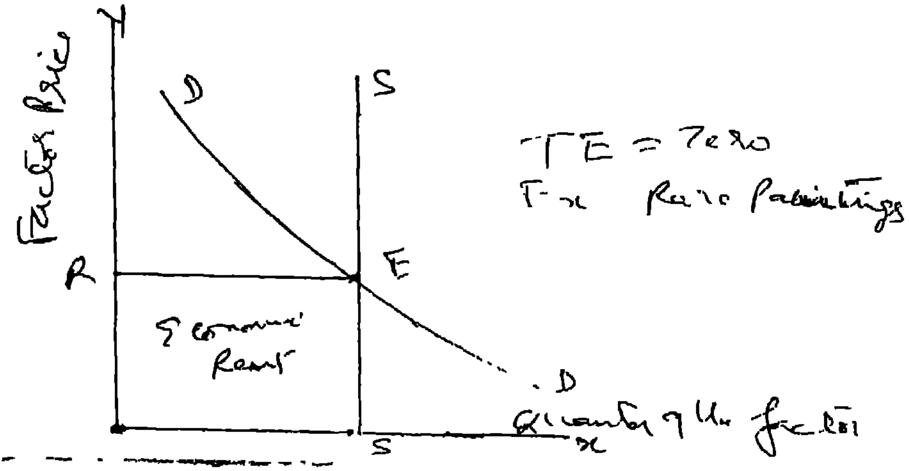
Modern Theory of Rent :

Mrs. Joan Robinson formulated it who defined rent as a payment to any factor over and above what is required to keep in the existing employment which are called transfer earnings.

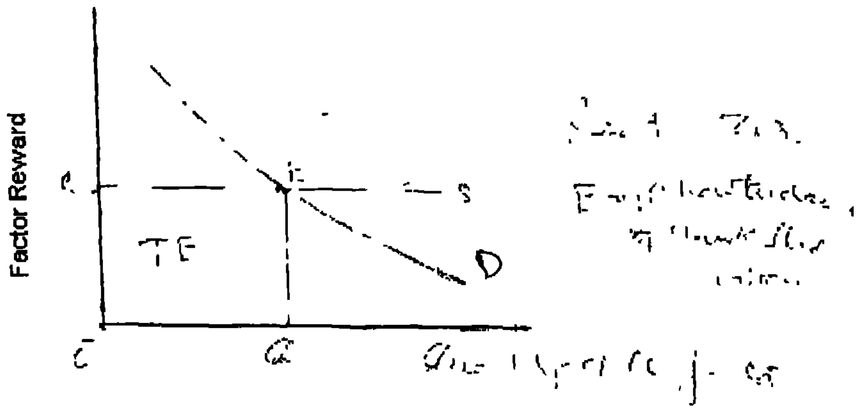
Economic rent = Actual earnings - Transfer earnings

Rent depends upon elasticity of supply of any factor. Greater the eleasticity of supply, less the economic rent

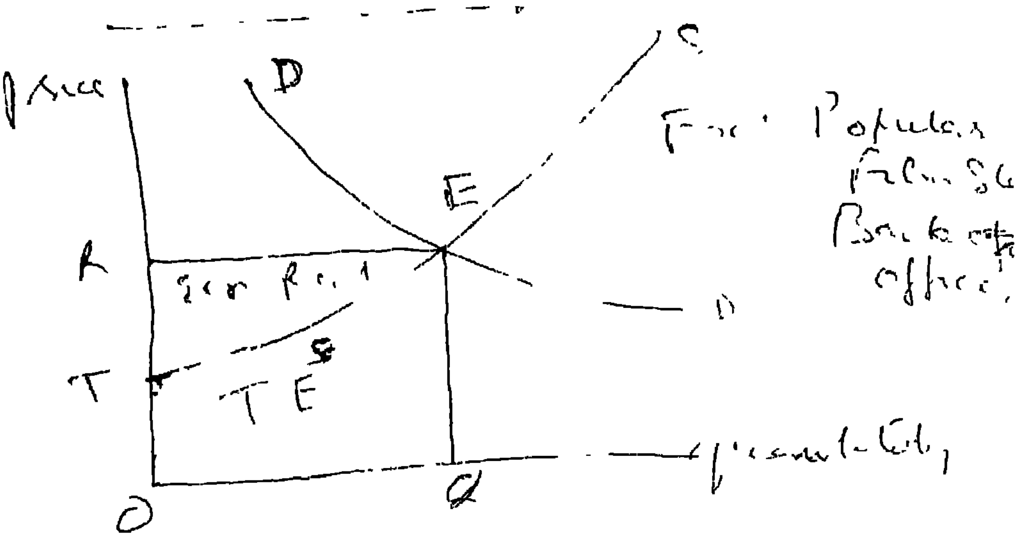
(i) Perfectly Inelastic Supply



(ii) Perfectly Elastic Supply



(iii) Elastic Supply



Quasi rent -

Developed by Marshall means payment made to factors which have in-elastic supply in the short run and earn rent, while in the long run their supply becomes elastic and so rent disappears

Quasi rent = TR - TVC .

It is a short run phenomenon

(7) Interest

Interest is the payment received from that part of capital which is used for lending It is paid by the borrower of-money.

This is net interest, while gross interest includes reward for risk- taking , management and inconveniences also.

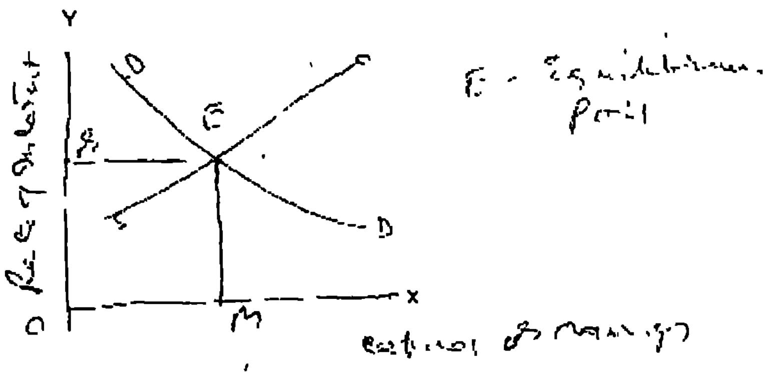
Several theories of interest have been propounded. The marginal productivity theory treats interest being determined by the marginal productivity of capital with a given supply of capital. This theory is credited to the name of Marshall J.B. Say and Carey.

The classical theory of interest propounded by Marshall, Fisher, Pigou, Knight is called the demand and supply theory of interest. Interest is determined by demand and supply of capital.

The demand for capital is determined by its marginal productivity which goes on diminishing as more and more capital is used. So the demand curve for capital is downward sloping.

Supply of capital results from savings which depends upon capacity and willingness to save. Supply of capital increases as interest rate rises and supply curve is positively shaped.

Determination of the Rate of Interest -



It is also called the saving - investment theory of interest. It is a real theory of interest as it explains on the basis of real factors like saving and investment

(8) Profit

In general terms, profit means excess of revenue over costs of production. Marshall, Taussing, Robertosn etc. defined profit as " residual payment, what is left of producers income after all other payments have been made" (Hansen)

Some economists define profit on the basis of functions performed by the entrepreneur Henry Greyson treats it as reward for risks and uncertainties

Theories of Profit -

Several theories of profit have been propounded by different economists.

(i) Rent Theory of Profit -

Developed by F.A. walker states that entrepreneurs earn profit because of their ability like land, more able entrepreneurs earn more profits.

(ii) Wage Theory of Profit -

Given by Taussig and Davenport, treats entrepreneurs like workers earn profits and profits are wages of the entrepreneurs on account at their special abilities.

(iii) Dynamic Theory of Profit -

Prof. J.B. Clark said profits arise because of dynamic nature of the economy. The determinants of demand and supply change and resulting changes in prices result into profit to the entrepreneurs.

(iv) Innovation Theory of Profits -

According to Schumpeter profits are the result of innovations undertaken by the entrepreneurs i.e. either producing a new commodity or the same commodity with a new and better technique.

(v) Risk Theory of Profits -

Hawtrey treated profits as being reward for the risk - taking function of the entrepreneurs. Four types of risks are replacement , risk proper, uncertainty and obsolescence.

(vi) Uncertainty - bearing theory of profits -

Prof. Knight treated intimate relationship between profit and uncertainty. The entrepreneur's function is to bear uncertainties about profitable demand, supply, price etc for which he earns profits.

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1. General Theory of distribution
2. Concept of Marginal product MPP, MRP, VMP
3. Marginal productivity theory of distribution
4. Modern theory of distribution
5. Wages
6. Rent - Ricardian Theory, Modern Theory - Perfectly inelastic supply,
   Perfectly elastic supply,
   Elastic supply
   Quasi rent
7. Interest - Classical Theory
8. Profit - Theories of Profit
   - Rent Theory
   - Wages theory
   - Dynamic theory
   - Innovation Theory
   - Risk Theory
   - Uncertainty - Bearing Theory

4.. Teacher's / Student's Activities

(i) Gathering information from students / others about their parents form of income and changes taking place in them.

(ii) Knowing from their area about the form of income of other people, changes in it and level of their satisfaction.

(iii) A visit to any unit of production and acquainting with the changes in the past and expected changes in future

5. Methodology -

A combination of lecture, questioning and discussion methods be used.. Empirical methods of acquainting students of actual form of rewards in neighbourhood can also be used.

6. References

(i) NCERT, S.P Das : Introductory Micro economics Ch.7

(ii) Deepashree : Introductory Micro and Macro Economics Ch. 13,14,15

(iii) P.N. Chopra : Micro Economics Ch. 22,23, 24,25,26

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Class XII **Sub- Economics**

Unit- IV : Laws of Production

Introduction

Production is an activity which is crucial in economy. Every producer tries to produce an output at the least cost. He has to use resources which require costs to be incurred. Therefore to him it is of great interest as to how much output he will get from the activity. There is a relationship between factors used and output. This relationship is technological as well as economic. Economic relationship indicates the possibilities of output as more and more of factors are used . They are known as the laws of production. This relationship will make the producer understand the likely output and supply and help in his objective of maximizing profit which is the aim of every producer.

Objectives

The teacher will be able to -

(i) explain the concept of revenue and its various forms like TR , AR and MR

(ii) explain the concept of cost and the crucial relationship between TC , AC and MC.

(iii) explain the meaning of product including TP, AP , MP

(iv) clarify the laws of return and return to scale

(v) explain the laws of supply.

(vi) explain the above with the help of illustration and diagrams

Contents

(i) Concept of revenue - It is an important tool for the study of theory of prices. Revenue to the producer or the ~~above~~ firm accrues due to the sale of its product. The total receipts are called total revenue (TR)

TR = Price per unit of the product x total no. of the units product sold (Q)

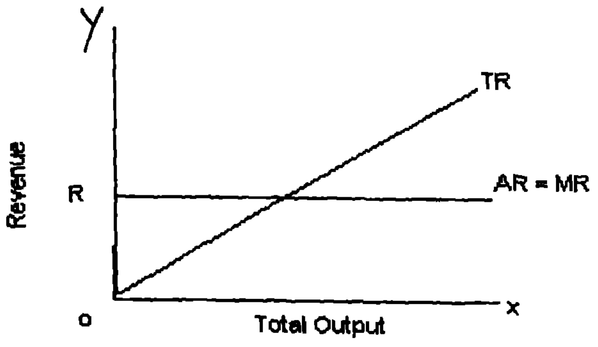
$$AR = \text{Price} = \frac{TR}{TQ}$$

$$MR = \text{Increase in TR due to an additional unit sold or } \frac{\Delta TR}{\Delta Q}$$

Table : Revenue Schedule (Perfect competition)

Output Q	TR	AR	MR
1	5	5	5
2	10	5	5
3	15	5	5
4	20	5	5
5	25	5	5
6	30	5	5

1. Diagram :



AR is also called the price line and is also the demand curve facing the firm.

2. Concept of cost -

Cost is the money cost of production or the aggregate money expenditure incurred by the firm on various items entering into the production of a commodity. There are three concepts of cost -

(a) Total cost (TC) = Total money cost of production

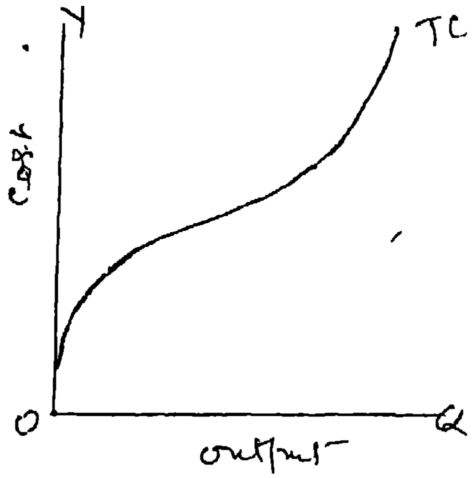
(b) Average cost (AC) = $\frac{TC}{TQ}$

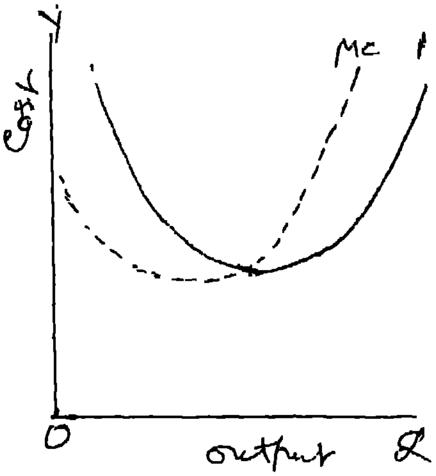
c) Marginal cost (MC) = Addition to total cost due to an increase in output by one unit or MC = $\frac{\Delta TC}{\Delta Q}$

Table : Cost Schedule

Units of output	TC	AC	MC
1	16	16	0
2	24	12	8
3	30	10	6
4	42	10 5	12
5	56	11.2	16
6	78	13	22

2. Diagram :





3. Concept of product :

Product or output refers to the volume of goods and services produced by a firm or an industry during a specified period of time The concept of product can be looked at in three forms -

(i) Total Product (TP) = Total Quantity of goods or output produced by a firm

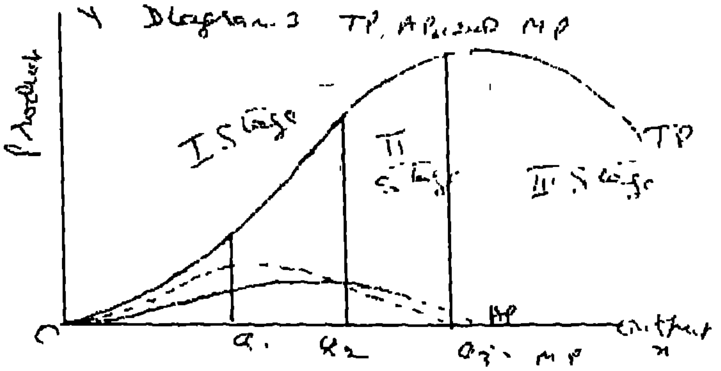
(ii) Average Product = $\frac{TP}{TF}$, there TF means total units of (variable) factor usually labour

(iii) Marginal Product (MP) = $\frac{\Delta TP}{\Delta TF}$

Table : Product Schedule

Units of labour	TP (Qts.)	MP (Qts.)	AP (Qts.)
1	78	18	18
2	30	12	15
3	38	8	12.6
4	44	6	11
5	48	4	9.6
6	50	2	8.3

3. Diagram :



(4) Laws of Returns

The laws of returns analyse the relation between factors (inputs) and output produced This relationship is also known as production function. The laws of return come into operation because of variability in the proportion in which various factors of production can be combined together for the purpose of production. This is caused when one factor is held constant while others are varied. The result can be either output increases in the same proportion, greater proportion or lesser proportion as compared to increase in other factors while keeping one factor constant . Accordingly, there laws are known as the laws of constant, increasing and diminishing returns respectively

The Law of Variable Proportion and the Law of Diminishing Returns :

When one factor is held constant with change in other factor causes change in factor proportion and the resulting output relationship is known as the law of variable proportions. This is explained in diagram 3 In the diagram TP increases first at a increasing and then at a decreasing rate and with maximum AP first stage of production ends . While second stage ends when TP is maximum, MP is zero and TP continues to increase, but at a decreasing rate somewhat constant return. In the third stage MP is negative, AP and TP are decreasing.

This law of variable proportion indicates that first there are increasing returns, somewhat constant returns and then ultimately diminishing returns come into operation. Therefore this law is also known as the law of diminishing return starting in the II stage of production.

(5) Laws of returns to scale -

When all factors (inputs) are variable change in output is called the law of return to the scale. Here also there are three situations. With 20% change in all inputs output can increase by greater than 20% less than 20% and by 20%. Accordingly we have law of increasing, diminishing, and constant returns to scale.

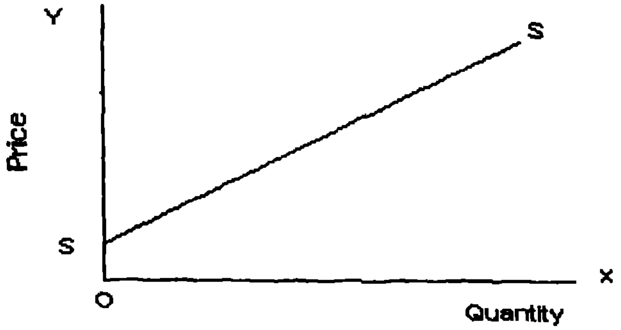
(6) Laws of Supply -

Supply means the quantity of goods and services made available in the market at a particular given price and at a particular point of time. The law of supply states that other things remaining same supply changes in the same direction in which price changes i.e supply increases when price rises and supply is reduced when price falls. This law stated in a tabular form in supply schedule and gives supply curve

Table : Supply Schedule

Price (RS.)	Qty. Supplied
5	0
10	5
15	16
20	29
25	42

The above table presented in a diagram below provides supply curve



Other things remaining the same -

On the determinants of the supply are as follows

(i) **Absence of technological changes -**

If a technological change takes place reducing the cost of production the supply may increase even when price falls.

(ii) **Input prices are same -**

If the input prices are reduced, cost may fall and supply may increase even when price falls and the law of supply may not hold good.

(iii) **Excise tax rate is unchanged -**

If this tax rate is reduced, cost will decrease, increasing the supply even when price falls. Thus the law of supply may not apply.

Contents

Laws of Production

1. Concept of Revenue - TR, AR, MR
2. Concept of cost - TC, AC, MC
3. Concept of Product - TP, AP, MP
4. Laws of returns - Law of variable proportions and Law of diminishing returns
5. Laws of return to scale
6. Laws of supply - Supply schedule and supply curve
   Determinants of supply or other things remaining the same
   - Technological changes
   - Input Prices
   - Excise tax rate

4. Teacher's / Students' Activities

(i) A visit to any production unit and studying aspects of production sales and receipts.

(ii) Inquiring about changes in cost of production from any small unit of production .

(iii) Observing behaviour of supply of certain goods during different periods of time in the year

References -

(i) NCERT, S.P. Das. Introductory Microeconomics - A Text book for class XII , Ch 3,4, (only relevant sections)

(ii) Deepashree - Introductory Micro and Macro Economics Relevant pages of chapter 6,8 and 10.

(iii) P N. Chopra - Microeconomics Ch. 14, 16.

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HOW TO TEACH DEMAND

Have you ever wondered why diamonds are very expensive althou basically inessential, while water is vital but cheap? Or why does land Delhi or Bombay command astronomical prices, while desert land Rajasthan is virtually worthless? The answer to these and a thousand ot question can be found in the theory of demand and supply This the shows how consumer preferences determine consumer demand f commodities while business costs determine the supply of commodities

1.0 Demand

Meaning of Demand

The concept 'demand' refers to the quantity of a good or service t consumers are willing and able to purchase at various prices during a peri of time It is to be noted that demand in economics is something more t desire to purchase though desire is one element of it A beggar for instan may desire food, but due to lack of means to purchase it, his demand is effective. Thus effective demand for a thing depends on (i) desire (ii) me to purchase and (iii) on willingness to use those means for that purch Unless demand is backed by purchasing power or ability to pay, it does constitute demand Two things are to be noted about quantity demand One is that quantity demanded is always expressed at a given price different prices different quantities of a commodity are generally demand

The second thing is that quantity demanded is a flow We are concerned not with a single isolated purchase, but with a continuous flow of purchases and we must therefore express demand as so much per period of time-one thousand dozens oranges per day, seven thousand dozen oranges per week and so on

1.01 What determines demand ?

There are a number of factors, which influence household demand for a commodity Important among these are

(i) Price of the commodity

(ii) Price of other related commodities.

(iii) Level of income of the household.

(iv) Tastes and preferences of consumers.

(v) Size and composition of population.

(vi) Distribution of income.

(vii) Other factors

The above listed factors can easily be presented in the form of a demand function as follows

$Qdc = f(Pc,PR,Y,T,D)$

Where Qdc is the quantity demanded of commodity c, Pc is the price of commodity, c, PR is the price of related commodities, Y is the money income of the household, T is the taste of the household, and D represents size of the population and other remaining factors.

The above function thus can be used to answer the question – what happens to demand when population, prices, incomes and tastes all change at once Obviously, it is very difficult to analyse such a complicated function To simplify things, we assume that all except one of the independent variables are held constant, we then allow this one variable to change and consider how the quantity demanded changes with it For example, we may hold prices of related commodities, income of consumers their tastes and preferences and other factors constant and study the relationship between quantity demanded of a product and its price From this study we can draw a few important conclusions about human behaviour

We shall now discuss the various determinants of demand and find their relationship with it

(i) **Price of the commodity :** Ceteris paribus i e other things being equal, the demand of a commodity is inversely related to its price It implies that a rise in price of a commodity beings about a fall in its purchase and vice-versa This happens because of income and substitution effects (These will be discussed later in this Unit)

(ii) **Price of related commodities :** Related commodities are of two types· (a) complementary goods and (ii) Competing goods or substitutes. Complementary goods are those goods which are consumed together or simultaneously For example, tea and sugar, automobiles and petrol, pen and ink are used together. When commodities are complements, a fall in the price of one (other things being equal) will cause the demand of the other to rise For example, a fall in the price of cars would lead to a rise in the demand for petrol Similarly, a fall in the price of pens, will cause a rise in the demand for ink The reverse will be the case when the price of a complement rises

Competing goods or substitutes are those goods which can be used will ease in place of one another For example, tea and coffee, ink pen ad ball pen, are substitutes for each other and can be used in place of one another easily When goods are substitutes, a fall in the price of one (ceteris paribus) leads to a fall in the quantity demanded of its substitutes For example, if the price of tea falls, people will try to substitute it for coffee and demand more of it and less of coffee i e the demand for tea will rise and that of coffee fall

(iii) **Level of income of the household :** Other things being equal, the demand for a commodity depends upon the income of the household In most cases the larger the average income of the household, the larger is the quantity demanded of a particular good However there are certain commodities for which quantities demanded decrease with an increase in income. These goods are called inferior goods Even in the case of other goods, the response of quantities demanded to changes in their prices is not of same proportions If goods are such that they satisfy the basic necessities (food, clothing, shelter) of life, a change in their prices although will cause an increase in demand for these necessities but this increase will be less than proportionate to the increase in income. This is because as people become richer, there is a relative decline in importance of food and other non durable goods in the over all consumption pattern and a rise in importance of durable goods such as a TV, car, house etc

(iv) **Tastes and preferences of consumers** : The demand for a commodity also depends upon tastes and preferences of consumers and changes in them over a period of time. Goods which are more in fashion command higher demand than goods which are out of fashion. Consumers may even discard a good even before it is fully utilised and prefer another good which is in fashion. For example, there is a greater demand of colour television and more and more people are discarding their black and whit television even though they could have still used it for some more years.

'Demonstration effect' plays an important role in affecting the demand for a product. An individual's demand for colour television may be affected by his seeing one in neighbour's or friend's house, either because he likes what he sees or because he figures out that if his neighbour or friend can afford it, he too can. A person may develop a taste or preference for wine after tasting some, but he may also develop it after discovering that serving it enhances his prestige. In any case, people have tastes and preferences and these change, sometimes due to exogenous and sometimes due to endogenous causes.

(v) **Other factors:** A part from the above factors, the demand for a commodity depends upon the following factors

(a) **Size of population** : Generally, larger the size of population of a country or a region, greater is the demand for commodities in general

(b) **Composition of population** : If there are more old people in a region, the demand for spectacles, walking sticks, etc. will be high. Similarly, if the population consists of more of children, demand for toys, baby foods, toffees, will be more

(c) **Distribution of income:** The wealth of a country may be so distributed that there are a few exceptionally rich people while the majority are exceedingly poor Under such conditions the propensity to consume of the country will be relatively less, for the propensity to consume of the rich people is less than that of the poor people Consequently, the demand for consumer goods will be comparatively less If the distribution of income is more equal , then the propensity to consume of the country as a whole will be relatively high indicating higher demand for goods

Apart from above, factors such as class, group, education, marital status and weather conditions, also play an important role in influencing household demand

1.1 Law of Demand

The law of demand is one of the most important laws of economic theory

According law of demand. other things being equal, if the price of a commodity falls, the quantity demanded of it will rise and if the price of a commodity rises, its quantity demanded will decline Thus there is an inverse relationship between price and quantity demanded, other things being same The other things which are assumed to be equal or constant are the prices of related commodities, income of consumers, tastes and preferences of consumers, and such other factors which influence demand If these factors which determine demand also undergo a change, then the inverse price-income relationship may not hold good For example, if incomes of consumers increase , then an increase in the price of a commodity, may not result in a decrease in the quantity demanded of it Thus the constancy of these factors is an important assumption of the law of demand.

The law of demand may be illustrated with the help of a demand schedule and a demand curve

1.1 0 **Demand Schedule :** To illustrate the relation between the quantity of a commodity demanded and its price, we may take hypothetical data for prices and quantities of a commodity

When price of commodity X is Rs. 5 per unit, a consumer purchases 10 units of the commodity When the price falls to Rs 4, he purchases 15 units of the commodity. Similarly, when the price further falls, quantity demanded by him goes on rising until at price R e. 1, the quantity demanded by him rises to 60 units. The above table depicts an inverse relationship between prices and quantity demanded as the price of the commodity X goes on rising, its demand goes on falling.

Demand curve : We can no plot the data from Table 1 on a graph with price on the vertical axis and quantity on the horizontal axis. In fig. 1, we have shown such a graph and plotted the five points corresponding to each price-quantity combination shown in Table 1. Point A, shows the same information as the first row of Table 1, that at Rs. 5 per unit, only 10 units of X will be demanded Point E shows the same information as does the last row of the table, when the price is Re 1, the quantity will be 60 units

1 1 1 **Market Demand Schedule :** When we add up the various quantities demanded by the number of consumers in the market we can obtain the market demand schedule. How the summation is done is illustrated in Table below. Suppose there are three individual buyers of the goods in the market The table below shows the individual demands at various prices .

Market Demand Schedule

Price (Rs.)	Quantity demanded by			Total market demand
	P	Q	R	
5	10	8	12	30
4	15	12	18	45
3	20	17	23	60
2	35	25	40	100
1	60	35	45	140

When we add quantities demanded at each price by consumers P.Q R we get total market demand. Thus when price is Rs. 5 per unit, the demand for commodity 'X' in the market is 30 units (i e. 10+8+12) When price falls to Rs. 4,market demand is 45 units. At Re.1, 140 units are demanded in the market. The demand schedule also indicates inverse relationship between price and quantity demanded of 'X'.

Market Demand Curve : If we plot market demand schedule on a graph we get market demand curve. The market demand curve, like individual demand curve, slopes downwards to the right because it is nothing but lateral summation of individual demand curves Besides as the price of the good falls, it is very likely that new buyers will enter the market which will further raise the quantity demanded of the goods

1 1.2 **Rationale for the Law of Demand :** Why does demand curve slope downwards? We just explained above that other things remaining same when price falls the quantity demanded of a commodity rises and vice- versa and that the demand curve slopes downward to the right. Now, the important question is why does the demand curve slope downward, or why does the law of demand operate ? The phenomenon is explained as follows·

(1) When the price of a commodity falls, it becomes relatively cheaper than other commodities. It induces consumers to substitute the commodity whose price has fallen for other commodities which have now become relatively expensive. The result is that total demand for the commodity whose price has fallen increases.

(2) When the price of a commodity falls, the consumer can buy same quantity of the commodity with lesser money or he can buy more of the commodity with the same money. In other words, as a result of fall in the price of the commodity, consumer's real income or purchasing power increases. This increase in the real income induces him to buy more of that commodity.

(3) When the price of a commodity falls, more consumers start buying it because some of those who would not afford to buy it previously may now afford to buy it. This raises the number of consumers of a commodity at a lower price and hence the demand for the commodity in question

1.1.3 Exceptions to the Law of Demand :

(1) Conspicuous goods
(2) Giffen goods
(3) Conspicuous necessities
(4) Future expectations about prices
(5) Impulsive purchases
(6) Ignorance effect

The law of material will also fail if there is any significant change in other factors on which demand of a commodity depends. If there is a change in income of the household, or in prices of the related commodities or in tastes and fashion etc. the inverse demand and price relation may not hold good

HOW TO TEACH ELASTICITY OF DEMAND

Till now we concerned with the direction of the changes in prices and quantities demanded Now we will try to measure these changes or to sat we will try to answer the question " by how much " ?

Consider the following situations

(1) As a result of a fall in the price of radio from Rs. 500 to Rs 400, the quantity demanded increases from 100 radios to 150 radios ·

(2) As a result of fall in the price of wheat from Rs. 10 per kilogram to Rs. 9 per kilogram the demand increases from 500 kilograms to 520 kilograms.

What do you notice ? You notice that as a result of fall in the price of radios, the demand for radio increases. But same in the case with sugar and salt Thus we can say that demand for the radios, sugar and salt all respond to price changes. Then where is the difference ? The difference lies in the degree of response of demand which can be found out by comparing percentage changes in prices and quantities demanded. here lies the concept of elasticity.

$$\text{Or } E_p = \frac{\dfrac{\text{Change in quantity}}{\text{Original quantity}} \times 100}{\dfrac{\text{Change in price}}{\text{Original price}} \times 100} \quad \text{OR} \quad E_p = \frac{\text{Change in Quantity}}{\text{Original quantity}} \times \frac{\text{Original price}}{\text{Change in Price}}$$

Or in symbolic terms

$$E_p = \frac{\Delta q}{q} \times \frac{p}{\Delta p} = \frac{\Delta q}{\Delta p} \times \frac{p}{q}$$

Where = E_p stands for price elasticity

q stands for quantity

p stands for price

Δ stands for a very small change

Strictly speaking the value of price elasticity varies from infinity to approach zero from the negative sign, because Δq has a negative sign In other words, since price and quantity are inversely related (with a few exceptions) price elasticity is negative. But for the sake of convenience, we ignore the negative sign and consider only the numerical value of the elasticity

POINT ELASTICITY :

In point elasticity, we measure elasticity, we measure elasticity at a given point on a given demand curve Point elasticity make use of derivative rather than finite changes in price and quantity It may be defined as

DEFINITION :

The concept of elasticity in economics is actually borrowed from physics In physics, it is supposed to show the reaction of one variable with respect to a change in the other variable on which it is dependent Elasticity is an index of reaction

Elasticity of demand as the responsiveness of the quantity demanded of a good to changes in one of the variables on which demand depends or we can say that it is the percentage change in quantity demanded divided by the percentage in one of the variables on which demand depends. These variables are price of the commodity, prices of the related commodities, income of the consumers and other various factors on which demand depends Thus we have price elasticity, cross elasticity, elasticity of substitution and income elasticity It is to be noted that when we talk of elasticity of demand , unless and until otherwise mentioned, we talk of price elasticity of demand. In other words, it is price elasticity of demand which is usually referred to as elasticity of demand.

PRICE ELASTICITY :

Price elasticity of demand expresses the response of quantity demanded of a good to a change in its price, given the consumer's income, his tastes and prices of all other goods In other words, it is measured as percentage in quantity demanded dividing by the percentage change in price, other things remaining equal That is

$$\text{Price elasticity} = E_p = \frac{\%\text{change in quantity demanded}}{\%\text{ change in price}}$$

$$\frac{-dq}{dp} \times \frac{p}{q}$$

where $\frac{dq}{dp}$ is the derivative of quantity with respect to price on the demand curve, and p and q are the price and quantity at that point

It is to be noted that elasticity is different at different points on the same demand curve Given a straight line demand curve tT, point elasticity at any point say R can be found by using formula

$$\frac{RT}{Rt} = \frac{\text{lower segment}}{\text{upper segment}}$$

ARC ELASTICITY :

When price elasticity is to be found between the two prices (or two points on the demand curve) , the question arise which price and quantity should be taken as base This is because elasticity's found by using original price and quantity figures as base will be different from the one derived by using new price and quantity figures. Therefore, in order to avoid confusion, generally averages of the two prices and quantities are taken as (i.e. original and new) base The are elasticity can be found out be using the formula ·

$$E_p = \frac{\Delta q}{\Delta p} \times \frac{\frac{p1 \times p2}{2}}{\frac{q1+q2}{2}}$$

Interpreting numerical values of elasticity of demand

- The numerical value of elasticity of demand can assume any value between zero and infinity
- Elasticity is zero, if there is no change at all in quantity demanded when price changes percentage change in price
- Elasticity is greater than one when the percentage change in quantity demanded is less than the percentage change in price In such case demand is said to be inelastic
- Elasticity is infinite, when some ‘ small price reduction raises the demand from zero to infinity Under such a case consumer will buy all that they can obtain of the commodity at some price If there is a slight increase in price, they would not buy anything from the particular seller This type of demand curve is found in perfectly competitive market

Elasticity measures, meaning and nomenclature

Numerical measure of elasticity	**Verbal description**	**Terminology**
Zero	Quantity demanded does not change as price changes	Perfectly inelastic
Greater than zero, but less than one	Quantity demanded changes by a smaller percentage than does price	Inelastic
One	Unit elasticity	

Greater than one, but less than infinity	Quantity demanded changes by a larger percentage than does price	Elastic
Infinity	Purchasers are prepared to buy all they can obtain at some price and none at all at an even slightly higher price	Perfectly elastic

DETERMINANTS OF ELASTICITY

So far we have been mainly concerned with the definition and properties of various concepts of elasticity and their measurement. We now discuss the factors which determine the value of a given elasticity. We will confine our reference to price elasticity only.

About the determinants of this elasticity , the following factors are relevant

i) **The extent of substitutability between goods** : Larger the number of substitutes available to a product, the more will be the elasticity of demand, the smaller the number, the less elastic the demand For example, consider T V. set for the first type and salt for the second type

ii) **The nature of the goods** : The demand for luxury goods in general is more elastic than the demand for necessary goods For example, consider car in the first category and sugar in the second category

iii) **The importance of the goods** A product which accounts for a high percentage of consumer's total expenditure is characterized by high elasticity You may now examine why salt is inelastic

iv) **The price of the product itself** Highly priced goods tend to have elastic demand while lower priced goods have less elastic demand The expression' highly ' priced' is normally taken to mean a price at which the quantity that the consumer plans to buy is close to zero For example, consider a product like refrigerator

v) **Whether demand can be postponed or not :** When price has risen and demand cannot be postponed, that will make demand less responsive to price rise than when demand can be postponed.

vi) **Price expectation of buyers :** When the price of the goods has fallen and the buyers expect to fall further, then they will postpone buying the goods and this will make demand less responsive. On the other hand, if they expect price to go up then they will speed up purchase, which will increase elasticity

vii) **Time allowed for making adjustment in consumption pattern :** In the short run it is very difficult to change habits. Hence the short- term demand is less responsive to price change. The longer the time allowed for time making adjustment in consumption pattern, the greater will be the elasticity. The consumers in the long –run would look for better substitutes Hence the elasticity increases in the long –run

INCOME ELASTICITY OF DEMAND :

Income elasticity of demand is the degree of responsiveness of quantity demanded of a good to a small change in the income of consumers In symbolic form ,

$$E_I = \frac{\Delta q}{q} \times \frac{\Delta y}{y}$$

where E_I stands for income elasticity

q stands for quantity demanded

y stands for income

Δ stands for a very small change

There is a useful relationship between income elasticity for a good and proportion of income spent on it. The relationship between the two is described in the following three propositions :

1. If the proportion of income spent on a good remains the same as income increases, then income elasticity for the good is equal to one
2. If the proportion of income spent on a good increases an income increases, then the income elasticity for the good is greater than one
3. If the proportion of income spent on a good decreases as income rises, then income elasticity for the good is less than one

Income elasticity of goods reveals a few very important features of demand for the goods in question If income elasticity is zero it signifies that the quantity demanded of the good is quite unresponsive to changes in income When income elasticity is greater than zero or positive than an increase in income leads to an increase in quantity demanded of the goods This happens in case of most of the goods and such goods are called normal goods. On the other hand, goods having negative income elasticity are known as inferior goods and their demands falls as income increases Another significant value of income elasticity is that of unity When income elasticity of demand is equal to one, then the proportion of income spent on good remains the same as consumer's income increases This represents a useful dividing line If the income elasticity for a good is greater than one it shows the good bulks larger in other hand, if the income elasticity is less than one it shows that the good is relatively less important in consumer's eye and, therefore , is called necessity

Using formula for income elasticity

$$\text{i.e.} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in income}}$$

we will find income- elasticity for various goods The results are as follows

S No	Commodity	Income elasticity for the household	Remarks
a	Wheat	5	since 0 < 5 > 1, wheat is a normal good and fulfills a necessity
b	V C R	2	since .2 > 1 , V.C R is a luxurious commodity
c	Bajra	(-) 4	since - 4 > 0, bajra is an inferior commodity in the eyes of household
d	X	1	since income elasticity is 1, X' has unitary income elasticity
e	Buttons	0	Buttons have zero income elasticity

CROSS ELASTICITY :

A change in the demand for one good in response to a change in the price of another good represents cross elasticity of demand of the former good for the latter good.

Symbolically ,

$$E_c = \frac{\Delta q_x}{\Delta p_x} \times \frac{p_x}{q_x}$$

(ii) Elasticity of demand is considered in budget formulation Specially the incidence of tax on consumers depends upon elasticity of demand A tax on a commodity, which has inelastic demand, may be wholly passed on to the consumer

(iii) The terms of trade depend upon elasticity of demand and supply Normally the terms of trade are unfavorable to a country whose demand for imported foreign articles is inelastic, the reverse is also true when the import demand is elastic

(iv) Effect of devaluation of currency also depends upon elasticity of demand and elasticity of supply of goods and services entering into international trade In case of inelastic demand for imports as well as inelastic supply for exports, devaluation may not be beneficial in terms of reducing the adverse balance of payments

(v) The effectiveness of price controls also depends upon elasticity of demand. With an inelastic demand for a controlled product, it would generally sell in the black market

(vi) Elasticity of demand is helpful in forecasting demand Given the elasticity of demand and the state of independent variable, it is possible to forecast the demand for a good.

MEASURES TO CORRECT EXCESS DEMAND

Excess demand leads to price inflation in the country In the situations of inflation inequality of distribution burdens, the burden of the poor man's budget increases, the activities of hoarding, black marketing and profiteering increases which distorts the distribution pattern and as a result of all, there is socio and economic instability in the country Therefore, it is essential to control these economic fluctuations in order to achieve the goal of economic development with social justice The measures to control excess demand (inflation may be grouped under three heads

(i) Monetary Measures
(ii) Fiscal Measures
(iii) Other Measures

1. Monetary Measures or Monetary Policy:

Measures which are adopted to control money supply or credit creation (increase or decrease in money supply) in a country are called monetary measures or credit control measures And the policy concerning monetary control measures is termed as monetary policy. Monetary policy is operated by the central bank of the country, for instance in our country it is operated by the Reserve Bank of India (RBI)

Measures to curtail the supply of money should be adopted in the situation of excess demand. In this regard following measures may be adopted.

I. **Increase in Bank Rate:** The rate at which central bank advances loans to the commercial banks or rediscounts first class bills of exchange and Government securities held by them is known as Bank Rate or Discount Rate On the other hand, the rate at which commercial banks advance loans to their customers is called Interest Rate Bank Rate and Interest Rate are closely related. Interest rate generally rises which the rise in bank-rate and vic3e-versa.

When there is a situation of excess demand or inflation in the country, central bank should increase its bank rate Raising the bank rate will increase the interest rate charged by the commercial banks also It will increase the cost of borrowing which in turn, will reduce the demand for credit. Consequently, the volume of bank loans and advances will also be curtailed This will reduce the credit creation activities And supply of money in the economy By curtailing money supply, the excess purchasing power and excess demand can be checked

II. **Selling of Securities in the Open Market:** Open market operations refer to the policy as sale and purchase of securities in the open market by the Central Bank of the Country Credit expands with the purchase of securities and contracts with the rate of securities

In the situation of excess demand)or inflation), the Central Bank should start selling the securities in the market. This will reduce the cash reserves of the commercial banks which, in return, would reduce the credit creation capacity of these banks. Thus, selling of securities reduces the availability of credit.

III. **Increase in Reserve Ratio:** Every commercial bank is required to keep a minimum percentage of its deposits with the central bank, this is termed as reserve ratio.

In the situation of excess demand (or inflation) central bank should raise the reserve ratio This will reduce the cash reserves of the commercial banks, which, in turn will reduce their credit creation capacity For instance, if banks have total cash deposits of Rs.100 crores and 20 per cent as the cash reserve ratio, then they have Rs.80 crores as the loan funds Now if the reserve ratio is increased to 30 per cent, then the availability of loanable funds with the banks will be reduced to Rs.70 Crores

IV. **Raising the Margin Requirements:** This method is employed to prevent excessive use of credit to purchase or carry securities by speculators The Central Bank fixed a minimum margin requirements on loans for purchasing securities In the period of excess demand (or inflation) Central Bank reduces the credit creation capacity of commercial banks by raising the margin requirements For instance, if the margin requirement is 25% then the commercial banks can lend Rs 75,000/- to the holder of the security of Rs 1,00,000/- Now if the Central Bank raises the margin requirements to 30%, the bank can lend only Rs 70,000 against the security of Rs 1,00,000/-

V. **Direct Action:** In the situation of excess demand (inflation) Central bank may issue directives directly to the commercial banks not to give credit beyond a certain limit or stop giving credit for certain purposes.

VI. **Moral Suasion To Reduce Credit Creation:** Moral suasion implies persuasion, request, informal suggestion, advise and appeal by the Central Banks to commercial banks to cooperate with general monetary policy of the Central Bank In the days of excess demand (or Inflation) it appeals for credit contraction

VII. **Rationing of the Credit:** In the days of excess demand (or Inflation) credit rationing may assume two forms.

   i. Fixing a ceiling on the aggregate portfolio of commercial banks so that loans and advances do not exceed this ceiling, or
   ii. Prescribing a minimum ratio of capital of commercial banks to its total assets.

VIII. **Control of Consumer's Credit:** In the days of excess demand (or Inflation) Central Bank reduces or makes costlier the loans given by the commercial banks to purchase durable consumer goods. This is done in two ways-

   i. By raising minimum down payments; and
   ii. By shortening the maximum period of payment

2. Fiscal Measures or Fiscal Policy:

Measures related to taxation, public borrowing and public expenditure re known as fiscal measures and the policy concerning them as FISCAL POLICY. Since this policy operates through budget, it is termed as BUDGETARY POLICY Measures adopted under this policy are broadly classified into two groups Discretionary measures and non-discretionary measures

I. **Non – Discretionary Measures:** These include those measures which are autonomous and in-built stabilizers such as progressive taxation, unemployment subsides, etc They are termed autonomous because they operate automatically with the fluctuations in economic activities In the situation of excess demand when monetary income rises, progressive taxation automatically curtails the purchasing power of the people by entracting extra amount in the form of taxes Since there is no involuntary unemployment in the situation of excess demand, there is no need to spend in the form of unemployment allowances, hence, it automatically reduces the public expenditure

II. **Discretionary Measures:** These include measures and decisions which depend on government's discretion and will For example Public expenditure on the following will form the part of discretionary measures

   i. ·Public works programme such as road construction rural electrification, slum improvement, etc
   ii. Governments investment on education, health, recreation, public health, etc.
   iii. Administration, law and order, and defense of the country

In the greatest difficulty regarding these discretionary measures is that the decisions about them is a difficult and complicated task in democratic countries As soon as government trees to curtail the expenditure on some projects, it becomes unpopular Besides, in a federal structure, it is not only the Central Government which incurs expenses but public expenditure is undertaken at State and local Governments · Therefore, a proper coordinator among the public expenditures schemes of the governments at various levels also becomes very essential Besides this, the coordination between government's fiscal policy and private consumption and investment expenditure also poses a difficulty.

The impact of Government's public expenditure on country's aggregate demand depends on the source and manner by which it is financed, There can be thre main sources of financing public expenditure.

Government should curtail the public expenditure on public works programmes such as road construction, rural electrification, slum improvement, creation of educational, health and recreational facilities, etc side by side, Government should control the investment in public enterprises also This will reduce Government purchases which, in turn, will reduce the aggregate demand

III. **Other Measures:** Besides these monetary and fiscal measures. Government can adopt measures also to correct the excess demand Prominent among them are

A. **Import – Surplus Policy:** Import – surplus means excess of imports over and above exports. If there is an inflationary condition in the economy as a result of excess demand, imports should be increased and exports discouraged This increases the total volume of goods and reserves available to the people This brings check on prices and inflation The country can finance its imports by three ways.

   a. The country may pay for imports by running down its gold reserves or foreign exchange reserves.
   b. It may take loans from internal agencies such as World Bank, I M.F., I D.A , etc , or from other countries.
   c. There can be a third way also, in which government may receive aids and grants from the friendly countries.

B. **Avoidance or Wage Increases:** In the situation of excess demand (or inflation) prices start to raise. The price rise raises the cost of living of the labour force Therefore, trade unions exert pressure for wage – hike If wages are raised under the pressure of trade unions and if these is no increase in production It will naturally raise the cost of production Rise in cost of production will further lead to rise in prices of goods and reserves and then trade unions will demand for further rise in wages Thus the cycle of inflation becomes more and more complicated Besides this, the rise in wages will increase the income of labourers This will raise the purchasing power and demand for goods and services It will further increase the aggregate demand. The increase in wages can be justified. When it lead to rise in productivity

a Issue of new currency
b. Borrowing from the public
c. Increase in taxation

As far as increase in the volume of currency is concerned, it definitely leads to inflation. Borrowing from the public may be both inflationary and dis-inflationary If the lending to the government causes the reduction in the demand for goods by the lenders, it can be helpful in controlling inflation but it people lend from their idle resources, it can prove to be inflationary Taxation, undoubtedly, reduces the disposable income of the people, this in turn reduces the purchasing power and effective demand Hence, if government reduces the deficit of its budget by increasing the taxes, it will control inflation and excess demand

Fiscal measures which are to be adopted in the situation of excess demand or inflation should aim at curtailing the purchasing power of the people and the level of aggregate demand in the economy In this regard following measures should be adopted·

A. **Reduction in Budget Deficits:** In times of excess demand Government should try to reduce budget deficit or should have a surplus budget The surplus budget is one in which public reserve is more than the public expenditure.. Through this method government takes away the purchasing power of the public and it will not use a part of this purchasing power by .keeping its reserve in its fund This will reduce the aggregate demand which, in turn, will correct the excess demand
B. **Increase in Taxation and Domestic Public Borrowing:** Government should increase the level of taxation in the days of excess demand. In the field of taxation also, the direct taxation (such as income tax, expenditure tax, gift tax, etc.), especially on the rich class, should be increased Besides this, luxury goods or the goods purchased by the rich class should be taxes heavily Similarly, government should borrow as much as possible from its own people through bonds, etc These measures also curtail the purchasing power of the people
C. **Curtailment in Public Expenditure and Public Investment:** In the situation of excess demand or inflation

Explain the measures to correct deficient demand

1. **Monetary Measures:** Measures to increase the money supply in the country should be adopted in times of different demand. In this regard following measures may be adopted.

   i) **Reduction in Bank Rate:** When there is situation of deficient demand or deflation in the country, Central Bank should reduce the bank-rate Reduction in bank-rate will decrease interest rate also As a result of this people will get credit cheaply Because of this they will increase the demand for credit and it will further increase the credit creation by the banks Increase in credit creation will increase money supply and aggregate demand in the country.

   ii) **Purchase of Securities in the Open Market:** In the days of different demand Central Bank should purchase the securities in the open market This will raise the reserve – fund of commercial banks. Which, in turn, will increase the credit creation capacity of these banks

   iii) **Reduction in the Reserve Ratio:** Central Bank should reduce the reserve ratio in the times of deficient demand or deflation This will raise the lonable funds available with the banks because of which commercial banks would be able to create more credit

   iv) **Promotion to Consumer Credit:** In times of deficient demand central. bank should encourage and promote the demand for durable consumer goods. For the central bank may reduce minimum down payments or it may widen the maximum period of repayment

   v) **Reduction in Margin Requirements:** In the period of deficient demand or deflation Central Bank should cut the margin requirements Because of this cut, people could now get more credit against their securities. This will expand credit creation

   vi) **Moral Appeal to increase Credit Creation:** In the days of deficient demand or deflation Central Bank may appeal to the commercial banks for credit expansion

If the productivity of labour rises, it will not lead to rise, in prices with the rise in wages

C. **Increase in Production Through the Optimum Utilization of Resources:** In the situation of excess demand and inflation, the demand for goods and services goes on increasing but the output of goods does not increase. Hence in such a situation it should carefully be looked into that if there is any possibility of more efficient utilization of resources. Sometimes, many countries, especially the under-developed countries, cannot make full utilization of their resources because of market imperfections and production – hurdles. Hence, an effort should be made for full and efficient utilization of the country's resources by removing hurdles and market imperfections. This will increase the output and aggregate supply in the country and thus the gap between aggregate demand and aggregate supply will be reduced

2. **Fiscal Measures:** Fiscal measures which are to be adopted in the situation fo deficient demand or deflation should aim at raising the purchasing power of the people and the level of aggregate demand in the economy In this regard following measures may be adopted

   i) **Deficit Budgeting:** In the days of deficient demand government should have deficit budget When public expenditure is higher than the public revenue, it is termed as deficit budget This deficit in budget is generally compensated by the increase the volume of currency Increase in the volume of currency increase the purchasing power of the people which, in turn raises the demand for goods

   ii) **Reduction in Taxes and Repayment of Domestic Public Borrowings:** Government should reduce the direct taxes in times of deficient demand This will raise the disposable income of the people which will enable them to purchase more from the market. Similarly, reduction in indirect taxes reduces the price of goods, which also raises the demand for goods Besides this, government should start repaying the domestic loans This will also increase the purchasing power and demand in the economy

   iii) **Increase in Public Expenditure and Public Investment:** Government should increase its public expenditure in the days of deficient demand In this situation Government should expand its activities for road, canals and dam construction, electrification, railway, health, education etc. Similarly investments in public enterprises should also be increased All of these will raise Government purchases which, in turn, will raise the level of aggregate demand.

3. **Other Measures:**

   i) **Increase in Exports:** When there is the problem of deficient demand, measures should be adopted to increase the exports and discourage imports We can raise aggregate – demand by expanding export – demand Increase in exports depends on a number of factors such as
      a) the availability of exportable goods in the country.
      b) competitive price and the quality of export goods in the world market· and
      c) purchasing power of the rest of the world

ii) **Wage Policy:** In times of deficient demand or deflation, stable wage policy should be adopted Both reduction and inciese in wages will affect the economy adversely

iii) **Support Price Policy:** Government should declare support – price for different goods in times of deflation At this support price government can purchase and store the commodity, this will raise the aggregate demand which, in turn will generate the confidence in the economy

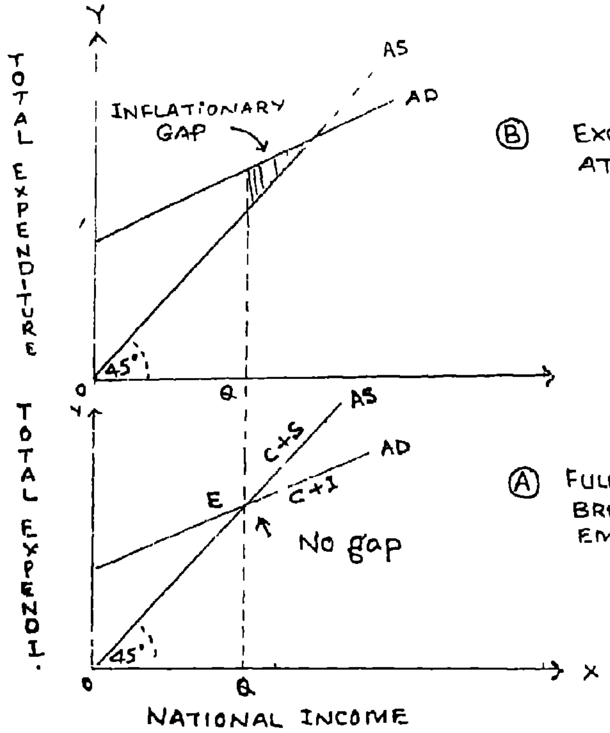
CHAPTER- 16

SUNIL GUPTA
[redacted]

MEANING OF DEFICIENT AND EXCESS DEMAND

What is meant by excess demand or inflationary gap ?

When aggregate demand exceeds aggregate supply at full employment, the demand is said to be an excess demand and the gap is called inflationary gap.

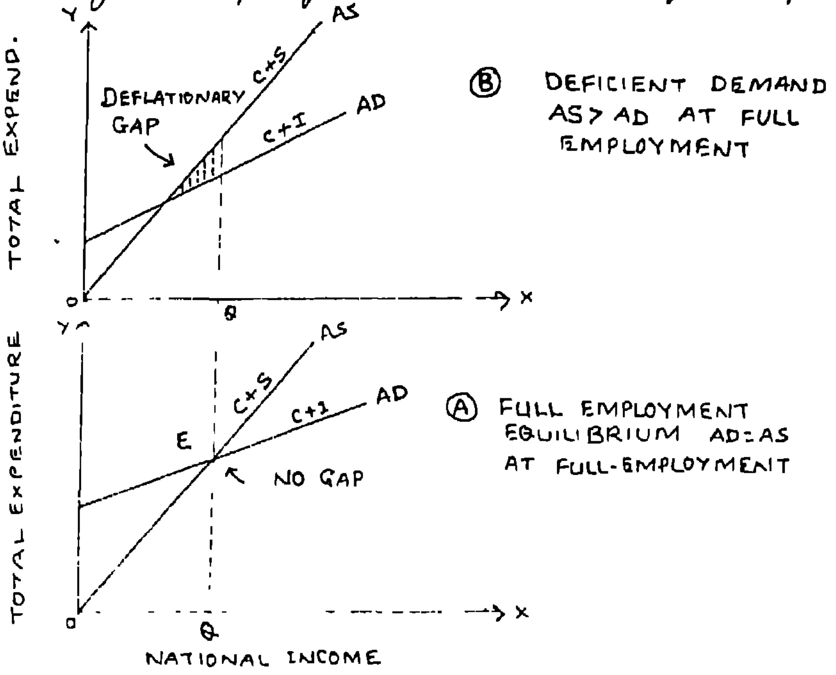

Y
TOTAL EXPENDITURE
AS
AD
INFLATIONARY GAP
45°
O
Q
Ⓑ EXCESS DEMAND AD > AS AT FULL EMPLOYMENT
TOTAL EXPENDI.
Y
AS
AD
C+S
C+I
E
No gap
45°
O
Q
X
Ⓐ FULL EMPLOYMENT EQUILIBRIUM AD = AS AT FULL EMPLOYMENT
NATIONAL INCOME

In other words, aggregate demand exceeds at the level of full employment. Inflationary gap exists when the expected expenditure in the economy is more than the value of output produced by making full use of available resources of the economy. An increase in demand beyond the equilibrium level of full-employment does not increase the output and employment since all the available resources have already been fully employed. As a result, it increases only money expenditure without corresponding increase in employment and output.

Part A of the figure represents full employment equilibrium whereas part B denotes equilibrium at excess demand. Here OQ represents the full employment income level and the shaded portion shows inflationary gap (or excess demand).

Q. What is deficient demand or deflationary gap?

A. When aggregate demand falls short of aggregate supply at full employment, it is said to be deficient demand. In such a situation, demand is not sufficient or adequate to eliminate involuntary unemployment. Involuntary unemploy-



ment exists, when those who are willing to work at the current rate of wages are not able to find jobs. The gap between the demand and the full employment output is called deflationary gap. Under these circumstances, equilibrium between aggregate demand and aggregate supply is at a point less than the level of full employment. Keynes calls it an under-employment equilibrium.

Deficient demand showing deflationary gap has been illustrated in the figure. Part A of the figure denotes full employment equilibrium whereas Part B depicts equilibrium at deficient demand. OQ represents the full employment income level and the shaded portion indicates deflationary gap or deficient demand.

Q. What is the impact of deficient demand on output, employment and prices?

A The impact of deficient demand on output, employment and prices depends upon the following factors.

1 The structure of the economy, i.e. whether the economy is competitive or oligopolistic in structure.

2 The supply of factors of production; whether they are perfectly elastic or otherwise.

3. The strength of the trade unions in preventing wages from falling drastically.
4. Whether the country is developed or underdeveloped.

The following will be the impact of deficient demand on output, employment and prices in different situations.

(i) In a competitive market structure of an economy where there are a very large number of producers, a fall in demand will result in fall in prices. This happened during Great Depression of 1929-33.

(ii) In an oligopolistic market structure of an economy where there are a few producers, a fall in demand leads more to fall in output and employment than in price. The few producers who dominate the market prefer to reduce output and employment instead of reducing the price of their product. Thus the prices of industrial goods rather remain sticky.

(iii) If supply of factors of production is perfectly elastic, the effect of fall in demand on price will be negligible in the long period because there will be a matching change in output and employment to change in demand but in the short-period when supply of factors like plants, machinery, building is inelastic, a fall in demand will lead to fall in prices depending upon degree of inelasticity of factors.

(iv) If a trade union succeeds in preventing a fall in wages due to fall in price on account of deficient demand, then management will resort to reduction in output and employment.

(v) In developed countries having oligopolistic market structure in non-farm (industrial) sector, if effective demand falls, output and employment is reduced instead of reducing the price drastically. Similarly, in farm (agricultural) sector which has more or less competitive structure and government farm price support, impact will be in the form of reduction in output and employment. Involuntary unemployment will increase due to sticky nature of wages of labour. Thus in developed countries, impact is more on output and employment than on prices.

(vi) In less developed countries having mostly competitive market structure in farm sector and small scale domestic industries, impact of fall in demand is mainly on prices and less on output and employment.

Q. What is the impact of excess demand on output, employment and prices ?

A. Excess demand is a situation where aggregate demand is more than aggregate supply at the full-employment level. Generally excess demand results in inflation (continuous rise in prices) without increase in output and employment. But in different situations in the economy, impact will also be different. We discuss the impact of excess demand in reference to these situations namely

(i) Whether the economy is in a state of unemployment or full-employment.

(ii) whether supply of factors of production is elastic or inelastic.

Thus following will be the impact of excess demand in prices, employment and output.

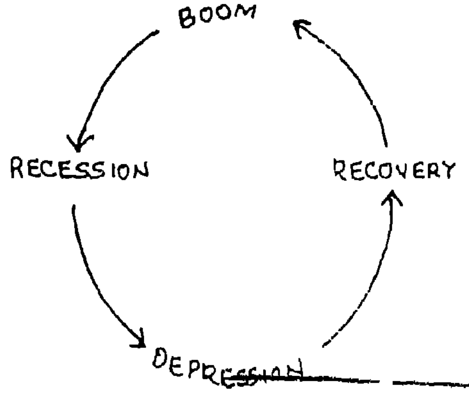
(i) If it is a state of voluntary unemployment and unemployment factors become ready to work, a rise in demand will lead to an increase in output and employment without an increase in prices.

(ii) If it is a state of full employment. i.e., involuntary unemployment does not exist, excess demand results in inflation or general rise in price level. Output will also not increase because there is no involuntary unemployment. Output will also not increase since all the available resources are already being used fully. Of course there can be a possibility of increase in output only if productivity of labour is increased in the long-period. But in short period when it is not possible to increase productivity of labour, an inflationary situation may develop due to rise in price.

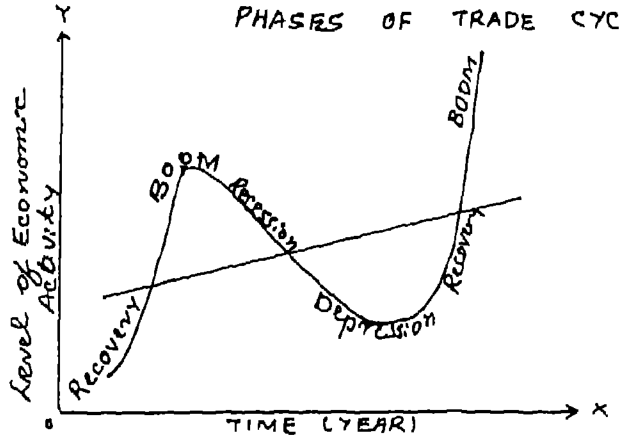
(iii) As far as impact on prices is concerned, if supply of other complementary factors is elastic, prices will not be affected much due to matching adjustment in output and employment. But if supply of factors is inelastic, prices will rise since output cannot be increased appreciably.

Q. What are Trade (Business) Cycle ?

A



Periodic fluctuations in economic activity at more or less regular intervals has been an important feature of all capitalist economies. Sometimes output, employment and prices are all rising while at other times they are moving downwards. Such upward and downward movement in economic activity occuring at regular intervals has been named as "business cycle". There are four phases of a trade cycle : (i) Recovery (Reflation) (ii) Boom (Inflation) (iii) Recession (Disinflation) (iv) Depression (Deflation)



Recovery is a period of new hope for the entrepreneurs to make profit because money, men and material are cheap. This induces the entrepreneur to assume the risk of starting the business. Recovery once started gathers force and recovery in one industry leads to recovery in the other resulting in boom. The booms are marked by increasing employment and output, rising prices and business profitability. This phase of boom lasts for a number of years. This is followed by recession which, unless

Generation of Income

Introduction · The contribution of each producing enterprise to the current flow of goods and services is the net value added at factor cost Net value added is created in the production process by the four primary inputs viz land, labour, capital and entrepreneurship and the income accruing to them are called primary incomes Since primary incomes are payable out of the Value created by them, it is called income generated in the production process Thus both value added and income generated are two sides of the same coin Therefore, generation of income concerns only factor incomes which arises from factor services.

Objectives:

After going through this unit you will be able to:

1 Explain the various concepts related to generation of income
2 Discuss the types and classification of factor incomes.
3 Distinguish among compensation of employees, operating surplus and mixed income of self employed
4. Significance of the domestic factor income in national income accounting
5. How the various items are treated in the estimation of national income
6 Choose the appropriate and effective instructional strategies to achieve the expected behvioural charges on the contents related to generation of income
7. Design teaching – learning situations and evaluation items on the topic.

8. Develop necessary skills required for teaching economics like questioning, describing etc.

Contents:

Source of income may be categorized as :

A) Income from work

- a. Income from wages and salaries
- b wages in kind
- c supplementary labour income
- d. Income of self employed.

B) Income from Ownership of property.

- a. Rent
- b. Interest
- c. Royalty
- d. Divident

C) Mixed income of self employed

Domestic Income and Its Components:

The income generated by all production units within the domestic territory of a country by all the producers is called domestic factor income. It is net value added at factor cost (NVA_{Fc}) or NDP_{Fc}

Domestic Territory:

It means political frontiers of the country plus.

- a. Ships and aircrafts operated by residents
- b. Fishing vessels
- c. Oil and Natural Gas Rigs
- d Floating platforms

e Embassies, High Commissions, Consulates and Military Establishments located abroad

It is divided into the following components

a Compensation of employees (Wages and salaries)

b Operating surplus (Rent + Interest + Profit)

c Mixed income of the self employed

A. Compensation of employees: Acc to C S O, it is defined as all payments by producers, of wages and salaries to employees in cash and in kind and contributions paid or imputed in respected of their employees to social security schemes and private pension, family allowance, casualty insurance, life insurance and similar schemes

Components

I Compensation in Cash :

i Basic Pay

ii Dearness Allowance/Interim Relief

iii House rent allowance

iv City compensatory allowance

v Benus/Commission

vi. Leave travel concession

vii. Sick leave allowance

II Compensation in Kind

i Rent free accommodation

ii Medical Allowance

iii Educational facilities

iv Free Boarding and Lodging

v Free supply of water and electricity

vi. Conveyance facility

III. Employer's Contribution towards Social Security·

- i Contributory Provident Fund
- ii Family Allowance
- iii. Private Pension
- iv Contribution towards life insurance
- v Contribution towards other social security schemes

Items to be excluded from C O E

- i Traveling stay in hotel and other business expenses incurred by employees and reimbursable by employer
- ii. Pay and allowances of armed and police personnel
- iii. Loans advanced to employees.
- iv. Compensation received by injured employee from insurance company

Compensation of Employees in Government Sector·

It includes the following.

- i. Wages, salaries, allowances and pension of Government employees.
- ii. Ration and uniform to defence and police personnel
- iii Pay and allowances of President, State Governors, Ministers, M.P s, Judges of Supreme Court and High Courts and C.A G

Methods of calculating C.O.E.

I Income Method

C O E = Wages and salaries in Cash + Wages and salaries in kind +free ration + free uniforms + Value of Subsidized lunch + Commission + Bonus + D A + Vacation allowance + Leave allowance + Employer's contribution to Social Security Schemes

II Value Added Method.

COE = NDP_{Fc} – operating surplus (Rent + Profit + Interest) – Mixed Income

Acc to C S.O It is the total income earned by a firm during the production process for property and entrepreneurship in the form of rent, interest and profit. IT is a domestic concept.

B.

Operating Surplus

Income from Property
- a) Rent
- b) Royalty
- c) Interest
- d) Dividend

Income from Entrepreneurship
- a) Profit

Income from Property:

It refers to actual and imputed income accruing from the ownership of financial assets, land, patents, copyrights and intangible assets

a) **Rent:** It is the amount payable in cash or in kind by the tenant to the landlord for the use of land and building

b) **Royalty:** It is the payment for the use of natural resources in subsoil which are beneath the soil It also includes patents, copyrights and trade marks

c) **Interest:** It is a payment for providing finance to a production unit

    i Interest payments made by one firm to other
    ii Interest income of the household
    iii Interest on national debt

d) **Dividend:** That part of profit which is distributed among the share holders.

Dividend = Profit – Corporation Tax – Undistributed Profit.

Income from Entrepreneurship :

The reward which an entrepreneur gets for risk taking is called profit. It includes.

b) **Corporation Tax:** Tax Imposed by the Govt on the profit earned by an entrepreneur

c) **Undistributed Profit:** Corporate Savings kept by the firm for further expansion and unexpected emergencies

Profit = Corporation Tax + Undistributed Profit + Dividend

I Thus, O S = Rent + Interest + Profit

II Value Added MEthod

$O\,S = G\,D\,P_{MP}$

- Depreciation
- Net indirect taxes
- Compensation of employees
- Mixed Income

Notes:

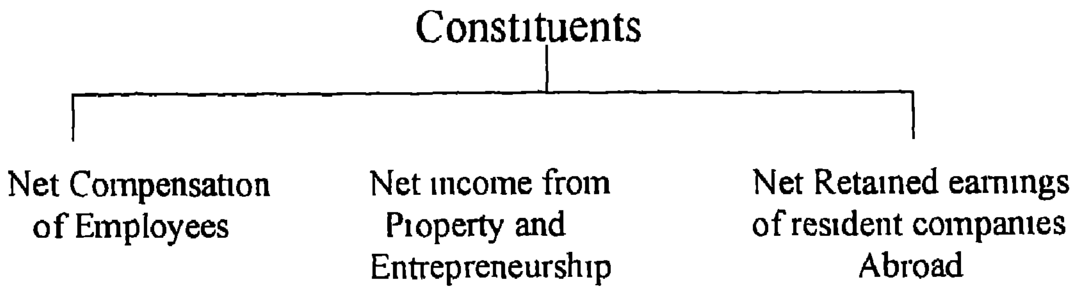
1. O S does not arise in general government sector because in this sector, production is basically for self – consumption
2. It does not arise in case of production for self consumption and non-profit institutions
3. It implies capital formation which indicates economic growth of an economy.

C. Mixed Income of Self employed: It is the total income of own account holders. In the household sectors, most of the entrepreneurs do not maintain proper account In India family members run small enterprises and do not take salary They do not separate factor income from property income e g A doctor managing his own clinic.

Mixed Income = Total factor income of self employed
Wages + Interest + Rent + profit

Net Factor Income from Abroad:

It is the difference between the income received from abroad by the normal residents of a country for rendering factor services and the income paid for the factor services rendered by non-residents within the domestic territory of a country.


Constituents
Net Compensation of Employees
Net income from Property and Entrepreneurship
Net Retained earnings of resident companies Abroad

Teachers' Students' Activities:

The students are to be taught about the generation of income in the national income accounting You may describe the concepts by relating them to the techniques followed at present with optimum participation by students. Allow the students to give reasons for inclusion or exclusion of certain items in the (COE), OS and mixed income of the self employed. To make the students know the above content, a discussion can be held in the class, It should give a feeling of content satisfaction in the class. You may conclude the discussion by summing up that the growth of education promoted awareness of new ideas related to generation of income in spite of several limitations We can list the various instructional aids which we may list for the above topic

Methodology:

For explaining the above topic lecture cum project method can be used to explain the content On one hand lecture method is economical and saves time. On the other hand, project method slides/transparencies can be very useful in linking the various concepts which will develop creativity and activity among the students to achieve the desired objectives

References.

1 N C.E R T class XII Economics Book
2 National income accounting by Wilfred Backermon
3 Macro Economics by Ackley.
4 National Income Accounting Dr Dipashrce.

Methods of Measuring National Income

Introduction :

The flow of production, income and Expenditure never stops It is a circular flow without a beginning or end Production generates income, income creates demand for goods and services and demand generates expenditure on the goods and services produced so that the circle of production income and expenditure always continues

Production aspect points to the flow of goods and services, income aspect to the generation of rent, wages, interest and profit and expenditure aspects show the disposal of income on consumption and investment expenditure

National income of a country is measured at three levels viz (a) Production level (b) Income level (c) Expenditure level Prof Schumpeter suggested for the first time to measure national income at the aforesaid three stages In India Calcutta based C S O. (Central Statistical Organisation) estimates national income

Objectives:

A The teacher will be able to explain the meaning of circular flow of income and production, income and distribution aspects associated with it

B Clarify the meaning of the income production and expenditure methods.

C He will be able to explain the various steps involved in the these methods by taking numericals

D Will be able to clarify the various precautions involved in the estimation of national income.

E Analyse the practical importance of estimation in the economic development of the country and its limitations

Contents:

Product Method/ Value Added/ Net Output? Industrial Origin Method.

It is an attempt to measure national income on the basis of contribution made by all the producing enterprises in the domestic territory of the country within the accounting year

Acc to this method, productive enterprises produce certain goods and services in the country and the value of these goods and services is known as national income. Goods include both consumer goods like bread, butter, apple, furniture etc and capital goods like plant, machinery, equipment etc Services include services rendered by employees in govt. departments and private enterprises like doctors, teachers, advocates, artists, etc The money value of these goods and services produced in the economy during the year is termed as G D.P

The process may be summarized as under

a Estimating the gross value of output in the various sectors of the economy

b. Determining the cost of material used and services rendered,

c Determining depreciation on capital goods and equipments

d. Calculating net value of domestic product by deducting depreciation from G D P

In order to determine the output of various sectors, the economy is classified into the following 14 sectors

1. Agriculture,
2 Mining,
3. Fishing,
4 Construction,

Less Economic subsidies

= GNP_{MP}

Less Depreciation

= NNP_{MP}

Less Net Factor income from abroad

= NNP_{MP}

Add Indirect taxes

Less Economic subsidies

= NNP_{FC}

Less. Income from entrepreneurship and property accruing to govt administrative departments

Less Savings of non departmental enterprises

= Income from domestic product accruing to private sector

Add Interest on national debt.

Add Net factor income from abroad.

Add. Current transfers from Govt administration departments

Add. Other current transfers from rest of the world

= Private Income

Less Saving of private companies

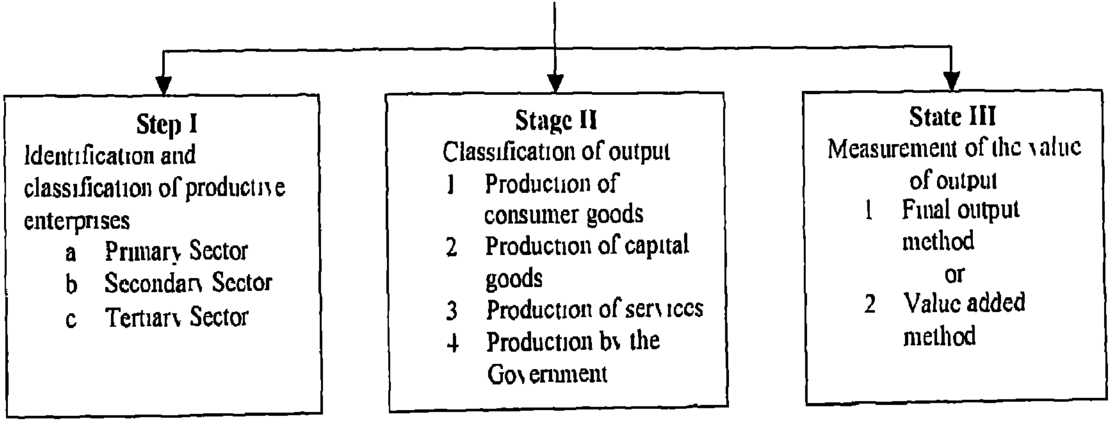
Less corporate taxes

= Personal income

Less Direct Taxes

5 Manufacturing.
6 Trade.
7 Transport, communication and other public utilities.
8 Manufacturing,
9. Ownership of dwellings and othr real estate
10 Services and industries
11.Professions
12 Domestics
13 Public Administration
14 Private non profit making institutions

Steps/Stages/Process of out method

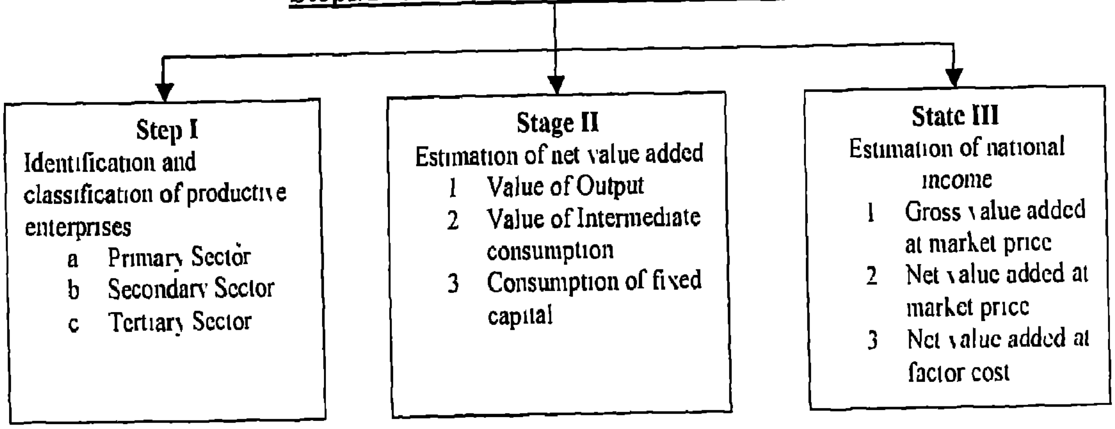


Step I
Identification and classification of productive enterprises
- a Primary Sector
- b Secondary Sector
- c Tertiary Sector

Stage II
Classification of output
1 Production of consumer goods
2 Production of capital goods
3 Production of services
4 Production by the Government

State III
Measurement of the value of output
1 Final output method
or
2 Value added method

Steps/Process of Value Added Method



Step I
Identification and classification of productive enterprises
- a Primary Sector
- b Secondary Sector
- c Tertiary Sector

Stage II
Estimation of net value added
1 Value of Output
2 Value of Intermediate consumption
3 Consumption of fixed capital

State III
Estimation of national income
1 Gross value added at market price
2 Net value added at market price
3 Net value added at factor cost

Relationship between N.9 and related aggregates

= GNP_{fc}

Add Indirect Taxes

2 Statistical difficulties

a Information collected are incomplete, inadequate and unreliable

3 Problems in under developed economies

a Non availability of complete and reliable information

b Incomplete information regarding part of the consumed goods

c Lack of economic specialization

d Regional imbalance

Precautions:

i. The value of intermediate good should not be included

ii. Purchases and sale of second hand goods should be excluded

iii. Imputed value of self consumed goods should be included

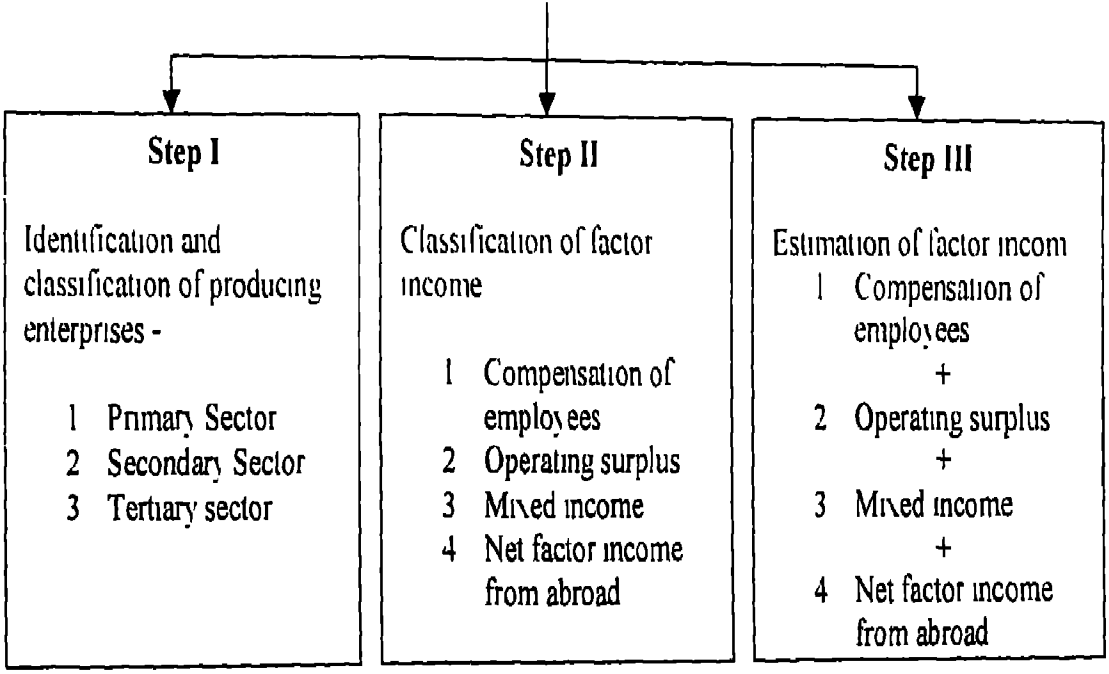
iv. Brokerage and commission paid should be included

v. Own account production should be included.

B. Income Method:

It estimates income on the basis of payments made to primary factors of production in the form of rent, wages, interest and profit

Process/Stages/Steps of Income method


Step I
Identification and classification of producing enterprises -
1 Primary Sector
2 Secondary Sector
3 Tertiary sector
Step II
Classification of factor income
1 Compensation of employees
2 Operating surplus
3 Mixed income
4 Net factor income from abroad
Step III
Estimation of factor incom
1 Compensation of employees
+
2 Operating surplus
+
3 Mixed income
+
4 Net factor income from abroad

Following incomes are included in the calculation of GNP_{FC}

1 Wages and salaries

2 Other compensation of employees

3 Employee's contribution towards social security

4 Income of the self employed

5 Rent

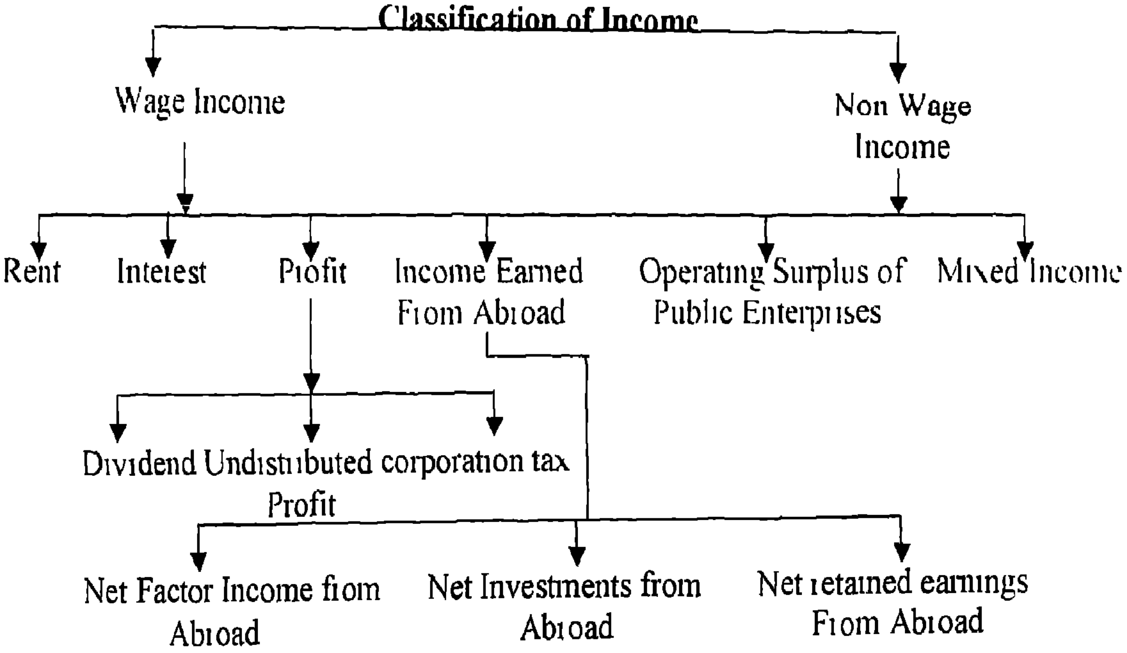
6 Interest

7. Dividend

8 Profit

9 Surplus of public enterprises

10 Net flow of factor income from abroad


Wage Income
Non Wage Income
Rent
Interest
Profit
Income Earned From Abroad
Operating Surplus of Public Enterprises
Mixed Income
Dividend
Undistributed Profit
corporation tax
Net Factor Income from Abroad
Net Investments from Abroad
Net retained earnings From Abroad

Classification of Income

Sectors using Income Method for estimating national income

a Unregistered manufacturing

b. Electricity gas and water supply

c Transport, storage and communication

d Trade hotels and restaurants

e Banking and insurance

f Real Estate, ownership of dwellings and business services

g Public administration Other services

h Other services

Problems / Difficulties

1 Difficulty in classification of income

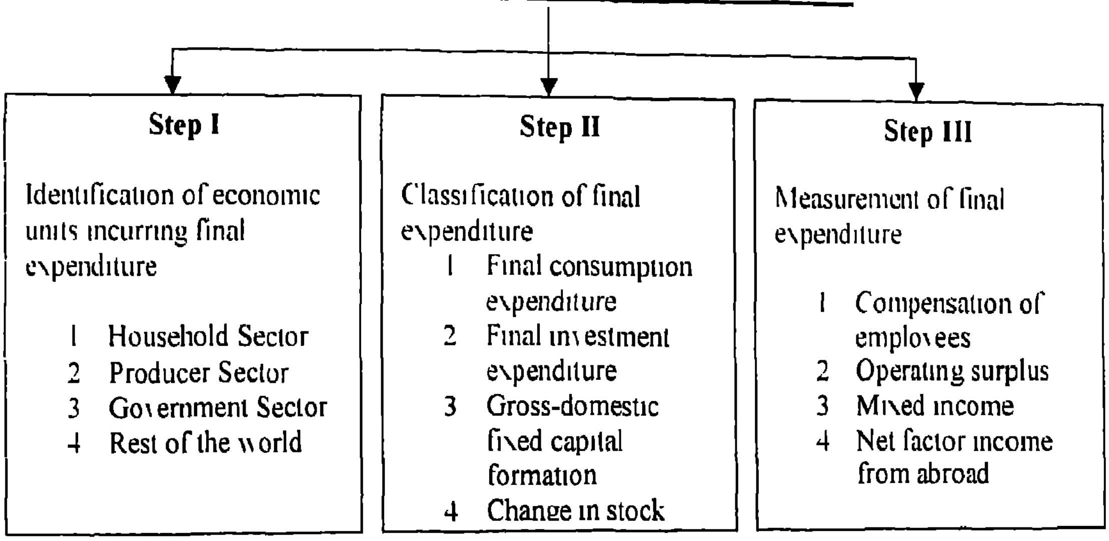
2 Difficulty in measuring income of self employed

3 Difficulty in allocation of dividend

4 Difficulty in computation of undistributed profit

5 Difficulty in the valuation

Process/Stages/Steps of Expenditure method



Step I

Identification of economic units incurring final expenditure

1. Household Sector
2. Producer Sector
3. Government Sector
4. Rest of the world

Step II

Classification of final expenditure

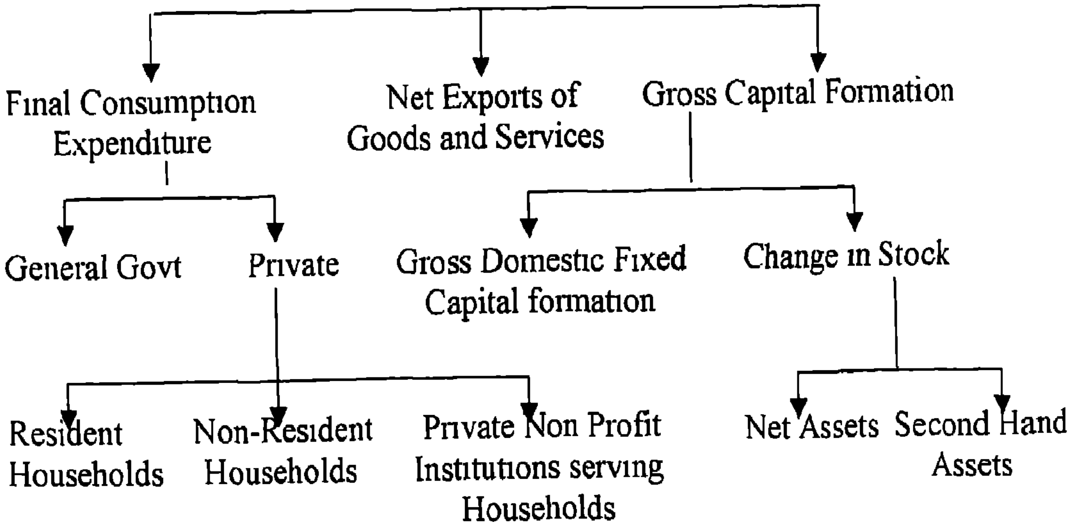
1. Final consumption expenditure
2. Final investment expenditure
3. Gross-domestic fixed capital formation
4. Change in stock

Step III

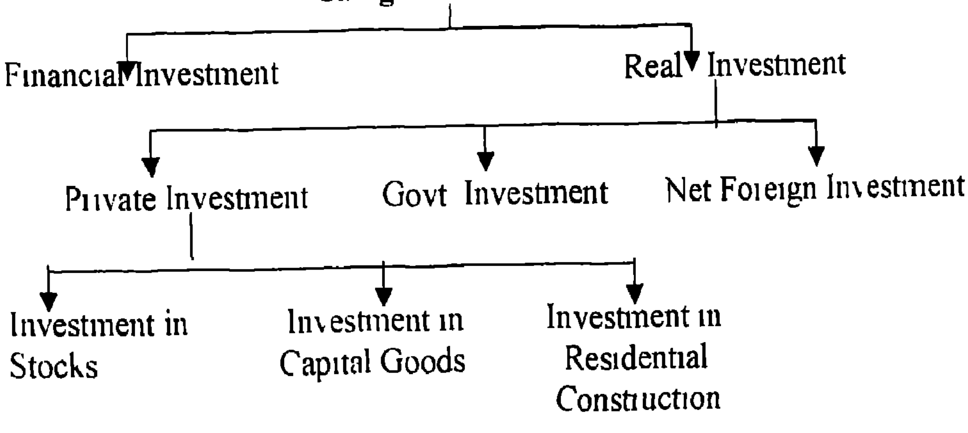
Measurement of final expenditure

1. Compensation of employees
2. Operating surplus
3. Mixed income
4. Net factor income from abroad

Classification of final expenditure


Final Consumption Expenditure
Net Exports of Goods and Services
Gross Capital Formation
General Govt
Private
Gross Domestic Fixed Capital formation
Change in Stock
Resident Households
Non-Resident Households
Private Non Profit Institutions serving Households
Net Assets
Second Hand Assets

Categories of Investment



Sources of Financing Gross Domestic Capital Formation

- Savings
- Provision for Consumption Of fixed capital
- Capital transfers from rest of the World
- Net borrowings from rest of the world

Precautions:

Items not to be included

a Expenditure of second hand goods

b Expenditure on shares, bonds and debentures

c Transfer payments

d Expenditure on intermediate goods

Teacher's/Student Activities:

This unit may be introduced by asking some questions as·

1 What's national income and its various aggregates

2 How can we distinguish among production income and expenditure

3 Explain briefly the circular flow of income

4 Distribution, growth, production, income and expenditure methods

The concept ma be discussed with the learners and then the following activities may be given

- Conduct a survey of your nearby locality, industries etc and collect their output data
- Suggest ways to overcome the difficulties in estimation of national income in India
- Organise a debate on 'national income method of measurement

Methodology:

For teaching methods of measurement of national income lecture method along with problem solving session can be used In the lecture method the teacher will present the subject matter in a systematized manner by putting down the topic first and then explaining the various methods of measurement But in order to make the students active listeners, problem solving sessions may be held to know the level of knowledge gathered by them by solving the questions and its practical importance in day-to-day life and also limitation associated with it.

Suggested Readings:

1. National Income accounting by Wilfied Bakerman
2. Macro Economics by 'Ackley'
3. NCERT test book for class XII
4. IGNOU study booklets for M A Economics
5. Macro economics by 'M.C. Vaish'

AN EASY APPROACH TO TEACH MARKETS

1. MEANING OF MARKET

Consider the following situation You go to the local market to buy a pair of shoes You enter one shop which sells shoes The shoes which you like are priced at Rs 600 But you think they are not worth more than Rs 550 You offer Rs 500 for the shoes But the shopkeeper is not ready to give them at less than Rs 550 You finally buy the shoes for Rs 550.

This is an example of a local market In this market some are buyers and some are sellers. The market fixes the price at which those who want something can obtain it from those who have it to sell

Note that it is only exchange value which is significant here The shopkeeper selling the shoes may have felt that the shoes ought to have made more than Rs 550 Considerations such as sentimental value mean little in the market economy.

Most goods such as Foodstuffs, clothing and household utensils etc. are given a definite price by the shopkeeper. But buyers will still influence this price If it is too high, the market will not be cleared, if it is low, the shopkeeper's stock will run-out

A market need not be formal or held in a particular place Second hand cars are often bought and sold through newspaper advertisements Second hand furniture may be disposed of by card in the local shop window

However, in studying the market economy it is essential to understand how price is determined Since this is done in the market, we can define the market simply as all those buyers and sellers of a good or service who influence the price

The elements of a market are

I Buyers and sellers,
II A product or service,
III Bargaining for a price,
IV Knowledge about market conditions and
V One price for a product or service at a given time

1.1 EXTENT OF THE MARKET

A market be local, confined to a village, or it can cover a whole state, a country or even the world. If buyers and sellers of a given product are scattered throughout the world, there will be a world market e.g. for gold, wheat, jute, oil, etc. There are many factors which contribute towards the extension of a market. These are

(i) **Nature of the Commodity:**

A commodity which is durable can have a wide market Much would depend on the facilities of transportation Some years ago we could not think of world wide market in perishable goods like fruits, etc But there is now a worldwide market for such products also.

(ii) **Size of production:**

For a world-wide market, production must be in huge quantity it meet demand for the product Large scale production has contributed towards the widening of the market; markets have expanded after the involution

(iii) **Extent of Demand:**

A commodity which is in universal demand is likely to have a wider market. For example, gold has a world-wide market.

(iv) **Means of Communication and Transport:**

With the availability of quick means of transportation there are better prospects for expansion of markets. For example, steamships in the past and cargo aircraft now contributed to expansion of markets.

(v) **Peace and Security:**

World peace and security provide a better climate for expansion of world market.

(vi) **Currency and Credit System:**

In the absence of a world currency, international liquidity based on the availability of good or other reserve currencies helps in the expansion of trade. A well developed credit system serves the same purpose. We find that after the establishment of IMF and World Bank and other international financial institutions, world trade has expanded

Trade Policies of the Countries:

No doubt restrictive trade policies have been followed by countries to direct economic growth into desired channels but international trade has expanded in general It is also true that trade between the advanced and the less advanced countries would have expanded more if the advanced countries has admitted more liberally manufactured goods from the developing countries

1.2 TYPES OF MARKET STRUCTURES:

These are·

(i) Perfect Competition

(ii) Monopoly

(iii) Monopolistic competition

(iv) Oligopoly

Perfect Competition : Perfect competition is characterized by many seller selling identical products to may buyers.

Monopolistic Competition : It differs in only one respect, namely, there are many sellers offering differentiated product to many buyers.

Monopoly : is a situation of a single seller producing for many buyers. Its product is necessarily extremely differentiated since there are no competing seller producing near substitute products.

In oligopoly, there are a few sellers selling computing products form many buyers.

Table I – summarizes the major distinguishing characteristics of these four major market forms.

Table – I Distinguishing features of major types of market.

	Market type			
Assumption	Pure competition	Monopolistic Competition	Oligopoly	Monopoly
Number of sellers	many	many	A few	One
Product differentiation	none	slight	None to substantial	Extreme
Price elasticity of demand of a firm	Infinite	large	small	small
Degree of control over price	none	some	some	Very considerable

2.0 PERFECT COMPETITION

Suppose you go to a vegetable market and enquire about the price of potatoes from a shopkeeper. He says potatoes are of Rs. 5 per kg.. In the same way, you enquire from many shopkeepers and you get the same answer. You notice the following facts.

(i) There are large number of buyers and sellers in the potatoes market.

(ii) All the shopkeepers are selling potatoes for Rs.5

(iii) Product homogeneity i.e. all the sellers are almost the same quality of potatoes in the sense that you can not judge be seeing the potatoes from which farmer's field do they come from.

Such type of market is known as perfectly competitive market In general it has the following characteristics

(i) There are a large number of buyers and sellers who compete among themselves and their number is so large that no buyer or seller is in a position to influence the demand or supply in the market

(ii) The commodity dealt in it is homogeneous in the sense that the goods produced by different firms are identical in nature

(iii) Every firm is free enter the market or it go out for it.

(iv) There is perfect knowledge, on the part of buyers and sellers, of the quantities of stock of goods in the market, market conditions and the prices at which transaction of purchase and sale are being entered into

(v) Facilities exist for the movement of goods from one centre to another Also buyers have no preference as between different sellers and as between different units of commodity offered for sale. also sellers are quite indifferent as to whom they sell.

(vi) The commodity or the goods are dealt on at a uniform price through out the market at a given point of time.

The last mentioned is a consequence of the conditions prevailing in a market operating under conditions of perfect competition, foe when there is a perfect knowledge and perfect mobility, if and seller tries to raise his price above that charged by others, he would lose his customers

3.0 MONOPOLY

The word "Monopoly" means " alone to sell". Thus monopoly is a situation in which there is a single seller of a product which has no close substitute. Pure monopoly is never found in practice However, in public utilities such as transport, water and electricity, we generally find monopoly form the market

3.1 Features of Monopoly market :

The following are the major features of the monopoly market

(1) Single seller of the product : In a monopoly market there is only one firm producing or supplying a product This angle firm constitutes the industry and as such there is no distinction between the firm and the industry in a monopolistic market.

(2) **Restrictions to entry** : In a monopolistic market, there are strong barriers to entry The barriers to entry could be economic, institutional. legal or artificial

Sources of monopoly power : While to some extent all goods are substitutes for one other, there may be essential characteristics in a good or group of goods which give rise to gaps in the chain of substitution. If one producer can so exclude competition that he controls the supply of a good, he can be said to be 'monopolist' – a single seller.

In real life there is seldom complete monopoly. But one producer may dominate the supply of a good or group of goods.

The possible sources of a monopolist's power to exclude competitors are :

(i) Legal prohibition of new entrants as with public utilities, where many firms would create technical difficulties. E.g. gas, electricity, water and telephone services.

(ii) Patents, copyrights and trademarks where the object is to promote inventions and development of new ideas.

(iii) Government policy of establishing single buying and selling agencies e.g. marketing boards.

(iv) Control of the source of supply by one firm e g. minerals, specialist workers trade unions and professional associations

(v) Ignorance . A monopoly mat persist largely through the ignorance of possible competitors. They may not know about the super- normal profits being made by the existing firm Or they may be unable to acquire the necessary know- how, e g. for involved technical processes.

(vi) Indivisibilities Whereas the original firm may have been able to build up its size gradually, new firms may find it difficult to raise the large capital required to produce on a scale which is cost competitive e.g. with cars, drugs, computers.

In some cases, too the efficient scale of plant may be so large relative to the market that there is scope for only one firm. This applies to many of the public utilities e.g. transport, water, electricity generation etc.

(vii) A deliberate of excluding competitors : There can also be a deliberate action to exclude competitors. Firms producing or selling the same good may combine or a competitor may be subject to a take over bid. This give monopoly powers to the firms who have joined together to form an association.

4 0 PRICE DISCRIMINATION

Consider the following examples.

The family and doctor in your neighborhood charges a higher fees from a rich patient compared to the fees charged from a poor patient even through both are suffering from viral fever. Why ?

Electricity companies sell electricity at a cheaper rate for home consumption in rural areas than for industrial use Why ?

The above cases are examples of price discrimination What is price discrimination Price discrimination occurs when a producer sells a specific commodity or service to different buyers at two or more different prices for reasons not associated with differences in cost

Further examples

(a) Doctors are able to separate patients with high income from those with low incomes and charge higher fee from the former.

(b) Railway separate high-value or relatively small-bulk commodities which can bear higher freight charges from other categories of goods.

(c) Some countries dump goods at low prices in foreign markets to capture them.

(d) Some universities charge higher tuition fees from evening class students than from other scholars.

(e) A lower subscription is charged from student readers in case of certain journals

(f) . A high price for vegetables may be charged in posh localities inhibited by the rich than in other localities.

Price discrimination cannot persist under perfect competition because the seller has no influence over market determined rate. Price discrimination requires an element of monopoly to that the seller can influence the price of his product.

Conditions for price discrimination : Price discrimination is possible only under the following conditions ·

(i) The seller should have some control over the supply of his product i.e monopoly power in some from is necessary to (not sufficient) discriminate price.

(ii) The seller should be able to divide his market into two or more sub- markets

(iii) The price- elasticity of the product should be different in different markets The monopolist fixes up a high price for his product for those buyers whose price elasticity of demand for the product is less than one. This implies that when the monopolist charges a higher price from them, they do not significantly reduce their purchases in response to high price

(iv) It should not be possible for the buyers of low priced market to resell the product to the buyers of high- priced market.

5.0 IMPERFECT COMPETITION – MONOPOLISTIC COMPETITION

Consider the market for soaps and detergents Among the well known brands on sale are Lux, Rexona, Hamam, Liril, Pears, Lifebuoy Plus, Evita and so many others. In this market an example of perfect competition But on a close inspection we find that each seller has at least some variation between his product and those of his competitors. For example, where as Lux is exhibited to be a beauty soap. Liril is more associated with freshness And for that reason Dettol soap is placed an antiseptic and Evita for young smooth skin The area of product and service differentiation gives each seller a chance to attract business to himself on some basis other than price. This is the monopolistic par of market situation. Thus the market contains features of both the market discussed earlier monopoly and perfect competition. In fact, this type of market is more common than pure competition or pure monopoly. The industries in monopolistic competition include clothing manufacturing and retail trade in large cities There are many hundreds of manufactures of women's dresses and hundreds of grocery shops in average medium sized or large city

5.1 **Features of monopolistic competition :**

(i) Large number of sellers In a monopolistically competitive market there are all large number of sellers who individually have a share in the market.

(ii) Freedom of exit . New firms are free to enter into the market and existing firms are free to quit it

(iii) Non-price competition : In a monopolistically competitive market, sellers try to compete on bases other than price, as for examples aggressive advertising, product development, better distribution agreements, efficient after sales service and so on. A key base of non-price competition is a deliberate policy of product differentiation. Sellers attempt to promote their products not by cutting prices but by incurring high expenditure on publicity and advertisement and other sale promoting techniques mentioned above This is because price competition may result in price wars which may throw a few firms out of market.

6 0 OLIGOPOLY :

We have studied price and output determination under three market forms namely perfect competition, monopoly and monopolistic competition However, in the real world economics we find that many of the industries are oligopolistic. Oligopoly is an important form of imperfect competition Oligopoly is often described as competition among the few. In other words , when there are few (two or ten) sellers in a market selling homogeneous or differentiated products, oligopoly is said to exist Consider the example of cold drinks industry or automobile industry. There are a handful firms manufacturing cold drinks in India Similarly there are few members of automobile industry in India. These industries exhibit some special features which are discussed in the following paragraphs

6.1 Characteristics of Oligopoly market :

(i) Interdependence . The most important feature of oligopoly is interdependence in decision making of the few firms which comprise the industry. This is because when the member of competitors is few, any change in price, output, product by a firm will have effect of the fortune of the rivals, who will then retaliate in changing their own prices, output or advertising technique as the case may be. It is therefore, clear than an oligiopolistic firm must consider not only the market demand for the industry product but also the reactions of other firms in the industry to any major decision it takes.

(ii) Importance of advertising and selling costs : A direct effect of interdependence of oligopolists is that the various firms have to employ various, aggressive and defensive marketing weapons to gain a greater share in the market or to maintain their share For this various firms have to incur a good deal of costs on advertising an other measures of sales promotion Therefore, there is a great importance of advertising and selling costs in an oligopoly market It is to be noted that firms in such type of market avoid price cutting one another a type of price war will emerge which will drive a few of them out of the market as customers will try to buy from the seller at the cheapest price

(iii) Interdeterminateness of demand curve facing an oligopolsitic Because of interdependence of the firms in oligopoly and because of inability a particular firm to predict the behavior of other firms, the demand curve facing an oligiopolistic firms loses its definiteness and determinateness.

SUMMARY

The features of the various types of market forms are summarized in the table given below

Classification of Market Forms

Form of market structure	Number of firms	Nature of product	Price elasticity of demand of a firm	Degree of control over price
(a)Perfect competition	A large number of firms	Homogeneous	Infinite	None
(b) Monopoly	One	Unique product without close substitute	Small	Very considerable
(c)Imperfect competition				
(i)Monopolistic competition	A large number of firms	Differentiated products	Large	Some
(ii) Oligopoly	Few firms	Homogeneous or differentiated product	Small	Some

TEACHING OF CONCEPTS THROUGH CAM

Introduction

The process of education enables the individual learner to actualize his or her potentiality The success of educational process depends to a large extent on the teacher who is considered the backbone of the educational system. In this extent, the teacher occupies an important place in the present educational system. Through the act of teaching the teacher assists and induces the pupils to attain perfection that already exists in them. A teacher, in fact, creates such conditions which facilitate blossoming of a pupa into a beautiful butterfly. Teacher's effectiveness in a classroom teaching is based on teaching competencies These competencies of a teacher can mould the classroom teaching which helps the students to learn well. Ann Thomas (1991) states that traditionally, learning has been seen as the reflex of teaching, the action of the teacher as requiring a corresponding reaction on the part of the learner. The major drawback of the present educational process is its orientation towards rote learning and acquisition of information. Teaching is dominated by lecturing and narration. Very little scope is granted for the free play of students enquiry and information. Constructed participation of the students in the instructional process has resulted to lack of conceptional clarity and learning '**how to learn**'. Without having the conceptual clarity learning can not be retained for longer time and can not be used in different situations of life, because concepts are the key building blocks of the structure of knowledge. They also firm the foundation of thought.

What is a concept ?

According to Instructional design Research , as reported by Tennyson and Park (1980) a concept is assumed to be a set of specific objects

symbols & events which share common characteristics (critical attribute) and can be referenced by a particular name or symbol. In simple term, a concept is the

bundle of certain critical attributes or characteristics involved in an idea, an event or a thing Concepts are ideas and, therefore, teaching of concept is like rearing ideas, the seeds of thought

CHARACTERISTICS OF CONCEPTS

1. Name (Eg.Tree, Ring, Pen, Bottle, Consumer, Trade, Deflation, Inflation, etc).
2. It always represents a group (Eg. : '**Tree**'- not a particular Tree).
3. It is a common noun. (city is a concept - But not '**Delhi**'), (Tree......Not **oak**.)
4. More than one Example of every concept (City - Calcutta, Delhi, Indore), (Tree - Oak, Sal, Peepal).
5 There are some common attributes in all examples. (Eg.- Tree-Root, Branch, Leaf, Fruit, Seed etc.)
6 There are concepts in every subject and every level.
7. Concepts are formed (निर्माण) with development of knowledge (Eg.- Computer, Robot, Satelite.)

ELEMENTS OF CONCEPT (घटक)

1 Name
2. Examples : (i) Positive, (ii) Negative.
3 Attributes : (i) Essential, (ii) Non-essential, (iii) Noisy.
4. Attributes Value · It refers to the acceptable range for any given relevant attributes.
Eg. Size, color, weight, length, taste.
5 Rule (Definition.)

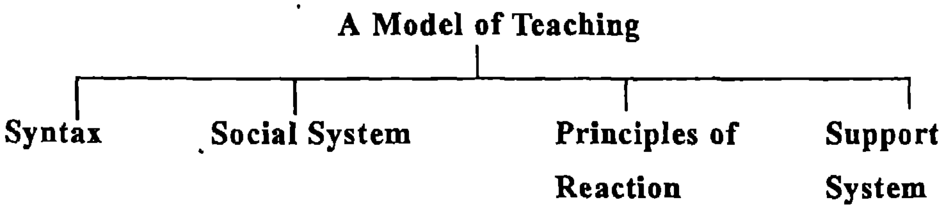
For the effective teaching of concepts Joyce and weil (1992)

developed a model, on the basis of the work of Bruner,Goodwin and Austin (1967), Known as Concept Attainment Model (CAM).

Models of Teaching ?

Models of teaching are designed to impart some useful strategies which help the students to increase their capacity to think clearly and provide learning opportunities When the teacher helps the students to acquire information, ideas, skills, values, ways of thinking and means of expressing themselves, the students also learn how to learn The models of teaching in this sense, are the models of learning. Joyce and W il (1978) defined models of teaching as a pattern or plan, which can be used to shape curriculum or course, to select instructional material, and to guide a teacher's actions. "Models are designed to reach specific goals. A model of teaching can be considered as a type of "blue-print" for teaching Just as a blue-print provides structure and direction to the builder, the model provides the same to the teacher. The models of teaching help the students to think and learn independently if the teacher is aware about them.

Four concepts of a model of Teaching are shown as below :



Families of Models of Teaching.

1. Information - Processing Models
2. Social Interaction Models.
3 Personal Models.
4 Behavioural Models

CAM

CAM comes in the family of Information - processing Model

Strategies for Concept Attainment.

The teaching of concepts demands a proper design and educational technology.Drisell and Tessmer(1985) have given the technology of the teaching of concepts

1 To find concepts from the content area(idea, event, thing)
2 To analyse the concept (type of concept, critical attributes, Prepare examples and non-examples of the concept)
3. To specify the instructional objectives.

Application of the Model

1. Analysis of the concept

    (i) Name of the concept
    (ii) Type of the concept
    (iii) Essential Attributes
    (iv) Non-essential Attributes
    (v) Concept Definition

2. Type of Model : (Selection, Reception, Unorganised Material Model)

3 Educational Objectives

4 **Phase - I** . Presentation of Data and Identification of the concept / attributes

Phase - II · Testing Attainment of the Concept

Phase - III Analysis of thinking strategy

Syntax of the Selection Strategy

Phase - I : Presentation of data and Identification of the Concept/Attributes

(a) Teacher presents unlabeled examples
(b) Students inquire which examples including their own, are positive one
(c) Students generate and test hypothesis
(d) Name the concept
(e) State its essential attributes

Phase -II : Testing Attainment of the concept

(a) Students identify additional unlabeled examples
(b) Students generate examples
(c) Teacher confirms hypothesis : name concept, restates definition according to essential attributes

Phase-III. Analysis of Thinking Strategy

(a) Students describe thoughts.
(b) Students discuss role of hypothesis and attributes
(c) Students discuss type and number of hypothesis
(d) Evaluate Strategies

Syntax of Reception Strategy

Phase -I Presentation of data and Identification of Concept

(a) Teacher presents Labeled examples
(b) Students compare attributes in positive and negative examples
(c) Students generate and test hypothesis
(d) Students state a definition according to the essential attributes

Phase -II . Testing Attainment of the Concept

(a) Students identify additional unlabeled examples " Yes " or " No "

Phase-III: Analysis of Thinking Strategy

(a) Students describe thoughts
(b) Students discuss role of hypothesis and attributes
(c) Students discuss type and numbering hypothesis

Syntax of Unorganised Material Model (UMM)

Phase -I : Presentation of Data and Identification of the Concept

(a) Locate and Label concept
(b) Identify attributes being used

Phase -II Testing Attainment of the Concept

(a) Discuss adequately and approximateness of concepts being used
(b) Compare examples to other data using same concept

Phase-III Analysis of Thinking Strategy

(Same as RM, SM)

TRAINING OF KRPs ON METHODOLOGY OF TEACHING ECONOMICS AT +2 LEVEL FOR THE STATE OF JAMMU AND KASHMIR

APPROACH PAPER

Introduction

Every subject in the school curriculum contributes towards the growth of the personality of the child by helping to promote desirable learning and skills. Of these subjects perhaps social studies can contribute the most towards the promotion of citizenship qualities. A citizen, at least must have the knowledge of the nation's political and economic scenario Moreover, in the today's globalised economy it is necessary for an individual to have the knowledge of economy. Therefore, the subject of economics constitutes one of the major components of social sciences which from an essential part of the Sr Secondary or +2 curriculum. It is taken by the student as an optional paper at the +2 level

Rationale

In the present world when all the nations are post into the globalised market economy, a wider perception of economic has become an essential. The future generation should be made aware that to sustain economic freedom and sovereignty in a globalised market economy generation of goods and services of global standard are essential. So, knowledge of the economy is essential. Educational systems in the world over are attempting to internalize the impact of globalization. Economics is considered as a theoretical subjects. Most of the concepts in economics are abstract in nature. Concrete examples are much difficult to cite before the students. Therefore, the transactional process in the classroom is much more difficult than other subjects. Lack of knowledge of proper methods makes it again hard to deliver lessons in the class effectively. Among the factors which determine the quality of instruction, good instructional material occupies an important place. But, absence or non- availability of proper material to the teacher is also another factor for ineffective teaching. Even though, material is available, proper training is not given to the clientele to use these effectively in the classroom. The teachers in general and economics teachers in particular have to keep abreast of the knowledge failing which they cannot effectively deliver lessons in the class. So the need of a training package in the methodology of teaching economics at + 2 levels was felt. These training packages will surely develop the professional competencies of the teacher. Through these packages the in-service training will be imparted to the teachers of economics at +2 stages. In- service training of teachers has been considered as significant interventions to improve the professional competence of the teachers. Moreover, the state co-ordination committee (CCE) Jammu & Kashmir expressed their desire to have a training package for the KRPs in the subject of economics at the +2 level

Under the above mentioned circumstances, the training of KRPs on methodology of teaching economics at +2 levels is proposed to be conducted at RIE, Ajmer from. 08.12 03 to. 12. 12. 03.

Objectives

To train the teachers in the content and methodologies of the teaching economics through using the developed training packages.

Regional Institute of Education, Ajmer
TRAINING OF KRPs ON METHODOLOGY OF TEACHING ECONOMICS AT+2 LEVEL FOR THE STATE OF JAMMU AND KASHMIR

SCHEDULE OF PROGRAMME
8-12 Dec.,2003

08.12.2003

9 00 to 11 30	Registration and introduction about the programme
11 30 to 11 45	Tea break
11 45 to 1 00	Discussion on law of production
1 00 to 2 00	LUNCH
2 00 to 3 30	Generation of Income
3 30 to 3 45	Tea break
3 45 to 5 30	Generation of Income continue

09.12.2003

9 00 to 11 30	Exchange
11 30 to 11 45	Tea break
11 45 to 1 00	Difference between contact rent and economic rent
1 00 to 2 00	LUNCH
2 00 to 3 30	Methods measuring National Income continue
3 30 to 3 45	Tea break
3 45 to 5 30	Calculation of domestic product in India

10.12.2003

9 00 to 11 30	Public finance
11 30 to 11 45	Tea break
11 45 to 1 00	Public finance continue
1 00 to 2 00	LUNCH
2 00 to 3 30	Main markets form
3 30 to 3 45	Tea break
3 45 to 5 30	Discussion on learning outcome & suggestions

11.12.2003

9 00 to 11 30	Distribution
11 30 to 11 45	Tea break
11 45 to 1 00	Distribution continue
1 00 to 2 00	LUNCH
2 00 to 3 30	Elasticity of demand
3 30 to 3 45	Tea break
3 45 to 5 30	Measurement of Elasticity

12.12.2003

9 00 to 11 30	Methods of teaching Economics
11 30 to 11 45	Tea break
11 45 to 1 00	Group work
1 00 to 2 00	LUNCH
2 00 to 3 30	Disbursement of TA & DA
3 30 to 3 45	Tea break
3 45 to 5 30	Valedictory

TRAINING OF KRPs ON METHODOLOGY OF TEACHING ECONOMICS AT+2 LEVEL FOR THE STATE OF JAMMU AND KASHMIR

(8-12 Dec.,2003)

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